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ABSTRACT

This volume is one of the products of the knowledge development effort implemented under the mandate of the Youth Employment and Demonstration Projects Act of 1977. This interim report describes the background and structure of the Educational Improvement Effort (EIE) of the Job Corps, as well as the preliminary findings for the first cohorts of participants and controls in the models of EIE implemented earliest. The EIE follows a logical sequence, beginning with a survey of the varying teaching methods and policies within Job Corps centers as well as a review of past evaluation literature. Cooperatively with the education community, exemplary education approaches outside Job Corps were assessed for applicability for disadvantaged youth in a center environment. The most promising models were then implemented and Job Corps members were randomly assigned to the models and to traditional Job Corps offerings. Assessment of both types of programs yielded findings that are remarkable if they hold up over time. The tested gain rates of Corpsmembers in regular programs exceed both public school averages and the lower learning rates previously achieved by the Corpsmembers in school. The gain rates also exceed those documented for Job Corps in the past. The evidence on the relative effectiveness of traditional and innovative approaches is limited now, but it does appear that some alternatives are promising, particularly, computerized instruction. It is clear that the individualized self-paced instructional approach used in Job Corps can positively affect learning rates of even the most disadvantaged youth. (KC)

YOUTH KNOWLEDGE DEVELOPMENT REPORT

EDUCATION AND TRAINING APPROACHES

Alternative Education Models—Preliminary Findings of the Job Corps Educational Improvement Effort

May 1980

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YOUTH KNOWLEDGE DEVELOPMENT REPORT 5.2

ALTERNATIVE EDUCATION MODELS -- PRELIMINARY FINDINGS OF THE JOB CORPS EDUCATIONAL IMPROVEMENT EFFORT

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OVERVIEW

The Job Corps is a primary alternative education mechanism. It serves youth who have mostly failed in or been failed by the education system. Seven of eight enrollees have not completed high school. The median achievement level at entry is below the sixth grade level.

Job Corps provides comprehensive educational opportunities. The basic education program consists of a standard set of materials graded for skill level, with a unit system of instruction and progression. There is a low student/teacher ratio to allow individualized attention. When students progress to roughly the eighth grade achievement level, they are usually placed in the General Equivalency Degree program. This, too, is a standardized package of self-paced units. An off-center Advanced Career Training Program in Colleges and Post Secondary Vocational Institutions has been instituted to provide the full range of Job Corps services and support for Corpsmembers who have the capability to continue their education in colleges and vocational schools. Finally, entrants into Job Corps are provided initial basic life skills and world of work instruction which will hopefully guide vocational choice in Job Corps and be of some help as well to early leavers.

Job Corps centers provide an excellent laboratory for testing and implementing new approaches for educating disadvantaged youth. The curriculum is established according to Federal standards and the centers are responsive to national direction. The centers provide a relatively standardized and self-contained environment so that it is possible to reduce exogenous influences on experimental activities. The data system in Job Corps is one of the most elaborate of any social program, providing detailed information on participant characteristics, on vocational, education and other activities and achievements while in Job Corps, as well as on subsequent labor market experiences.

Job Corps has, in fact, a history of innovation and experimentation in educational curricula. Its standardized self-paced and individualized approach was at the vanguard of the alternative education movement in the 1960s. Copious studies have been undertaken of the effectiveness of this approach. Educational gains testing was, for several years a basic element of Job Corps performance monitoring.

The Educational Improvement Effort (EIE), therefore, utilizes the Job Corps' potential as an experimental laboratory to carefully test alternative approaches and for teaching economically and educationally disadvantaged youth.

The EIE follows a logical sequence, beginning with a survey of the varying teaching methods and policies within Job Corps centers as well as a review of past evaluation literature. Cooperatively with the education community, exemplary education approaches outside of Job Corps were assessed for applicability for disadvantaged youth in a center environment. With some adaptation, the most promising models were then implemented in multiple centers. A research infrastructure and management information system were established in experimental centers. Under a carefully designed and controlled research strategy, repeated cohorts of Corpsmembers are randomly assigned to the models and to traditional Job Corps offerings. Their educational gains over a standardized period are measured. A range of process information is gathered about the experiences of participants, as well as of staff who administer the new models. Job Corps individual program data are combined with the process and educational gains tests to assess the impact and effectiveness of the various approaches.

The lessons from EIE extend far beyond Job Corps. The demonstration and research intrastructure which has been put in place permits as close to "pure experimental" conditions as can be achieved in an operational setting, so that a range of alternative approaches on educating disadvantaged youth can be tested and refined.

This interim report describes the background and structure of the Educational Improvement Effort as well as the preliminary findings for the first cohorts of participants and controls in the models implemented earliest. The findings are rather remarkable if they hold up over time. The tested gain rates of Corpsmembers in regular programs exceed both public school averages and the lower learning rates previously achieved by the Corpsmembers when school. The gain rates also exceed those documented for Job Corps in the past. The evidence on the relative effectiveness of traditional and innovative approaches is limited at this point in time, but to date, it does appear that some alternatives are promising, particularly, computerized instruction approaches. It is very clear that the individualized, self pared instructional approach used in Job Corps can positively affect learning rates of even the most disadvantaged youth.

This volume is one of the products of the "knowledge development" effort implemented under the mandate of the Youth Employment and Demonstration Projects Act of 1977. The knowledge development effort consists of hundreds of separate research, evaluation and demonstration activities which will result in literally thousands of written products. The activities have been structured from the outset so that each is self-standing but also interrelated with a host of other activities. The framework is presented in A Knowledge Development Plan for the Youth Employment and Demonstration Projects Act of 1977, A Knowledge Development Plan for the Youth Initiatives Fiscal 1979 and Completing the Youth Agenda: A Plan for Knowledge Development, Dissemination and Application in Fiscal 1980.

Information is available or will be coming available from the various knowledge development activities to help resolve an almost limitless array of issues, but answers to policy questions will usually require integration and synthesis from a number of separate products, which, in turn, will depend on knowledge and availability of these products. A major shortcoming of past research, evaluation and demonstration activity has been the failure to organize and disseminate the products adequately to assure the full exploitation of the findings. The magnitude and structure of the youth knowledge development effort puts a premium on organization and dissemination of findings.

As part of its knowledge development mandate, therefore, the Office of Youth Programs of the Department of Labor will organize, publish and disseminate the written products of all major research, evaluation and demonstration activities supported directly by or mounted in conjunction with the knowledge development effort. Some of the same products may also be published and disseminated through other channels, but they will be included in the structured series of Youth Knowledge Development Reports in order to facilitate access and integration.

The Youth Knowledge Development Reports, of which this is one, are divided into twelve broad categories:

1. Knowledge Development Framework: The products in this category are concerned with the structure of knowledge development activities, the assessment methodologies which are employed, validation of measurement instruments, the translation of knowledge into policy, and the strategy for disseminating findings.

2. Research on Youth Employment and Employability Development: The products in this category represent analysis of existing data, presentation of findings from new data sources, special studies of dimensions on youth labor market problems and policy analyses.

3. Program Evaluations: The products in this category include impact, process and benefit-cost evaluations of youth programs including the Summer Youth Employment Program, Job Corps, the Young Adult Conservation Corps, Youth Employment and Training Programs, Youth Community Conservation and Improvement Projects, and the Targeted Jobs Tax Credit.

4. Service and Participant Mix: The evaluations and demonstrations summarized in this category concern the matching of different types of youth with different service combinations. This involves experiments with work vs. work plus remediation vs. straight remediation as treatment options. It also includes attempts to mix disadvantaged and more affluent participants, as well as youth with older workers.

5. Education and Training Approaches: The products in this category present the findings of structured experiments to test the impact and effectiveness of various education and vocational training approaches including specific education methodologies for the disadvantaged, alternative education approaches and advanced career training.

6. Pre-Employment and Transition Services: The products in this category present the findings of structured experiments to test the impact and effectiveness of school-to-work transition activities, vocational exploration, job-search assistance and other efforts to better prepare youth for labor market success.

7. Youth Work Experience: The products in this category address the organization of work activities, their output, productive roles for youth and the impacts of various employment approaches.

8. Implementation Issues: This category includes cross-cutting analyses of the practical lessons concerning "how-to-do-it." Issues such as learning curves, replication processes and programmatic "batting averages" will be addressed under this category, as well as the comparative advantages of alternative delivery agents.

9. Design and Organizational Alternatives: The products in this category represent assessments of demonstrations of alternative program and delivery arrangements such as consolidation, year-round preparation for summer programming, the use of incentives and multi-year tracking of individuals.

10. Special Needs Groups: The products in this category present findings on the special problems of and adaptations needed for significant segments including minorities, young mothers, troubled youth, Indochinese refugees and the handicapped.

11. Innovative Appraches: The products in this category present the findings of those activities designed to explore new approaches. The subjects covered include the Youth Incentive Entitlement Pilot Projects, private sector initiatives, the national youth service experiment, and energy initiatives in weatherization, low-head hydroelectric dam restoration, windpower and the like.

12. Institutional Linkages: The products in this category will include studies of institutional arrangements and linkages as well as assessments of demonstration activities to encourage such linkages with education, volunteer groups, drug abuse agencies and the like.

In each of these knowledge development categories, there will be a range of discrete demonstration, research and evaluation activities, focused on different policy, program and analytical issues. For instance, all experimental demonstration projects have both process and impact evaluations, frequently undertaken by different evaluation agents. Findings will be published as they become available so that there will usually be a series of reports as evidence accumulates. To organize these products, each publication is classified in one of the twelve broad knowledge development categories, described in terms of the more specific issue, activity or cluster of activities to which it is addressed, with an identifier of the product and what it represents relative to other products in the demonstration. Hence, the multiple products under a knowledge development activity are closely interrelated and the activities in each broad cluster have significant interconnections.

There are several other Youth Knowledge Development Reports closely related to this volume. Alternative Education Models -- Interim Findings from the Replication of the Career Intern Program provides data on community based alternative education approaches. In the program evaluation category, the two-volume Assessments of Job Corps Performance and Impacts, and The Lasting Impacts of Job Corps Participation provide background information on Job Corps educational programs and their impact.

ROBERT TAGGART
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FOREWORD

The EIE evaluation is an important segment of research and assessment which is being sponsored by the Office of Youth Programs of the Department of Labor in FY 1979 and FY 1980. While this particular effort is applicable to the Job Corps, results should impact on the larger scope of youth initiatives activities.

> Knowledge development has always been a basic mission of Job Corps. With its broad mandate to provide comprehensive services to the disadvantaged, with its detailed and uniform reporting procedures, Job Corps provides the controlled conditions so important in research and demonstration activities. The law specifies that Job Corps should contribute "...to the development and dissemination of techniques for working with the disadvantaged that can be widely utilized by public and private institutions and the agencies." The law also specifies that "The Secretary shall provide for the careful and systematic evaluation of the Job Corps program, directly or by contracting for independent evaluations, with a view to measuring specific benefits, so far as practical, and providing information needed to assess the effectiveness of program procedures, policies, and methods of operation." (Knowledge Development Plan for Youth Initiatives, FY 79, p. 17)

It is to fulfill these latter legislative mandates as well as to attempt to provide Job Corps enrollees with the best possible education that the EIE was conceived.

The parameters of the EIE are carefully delineated within the text of the 1979 Knowledge Development Plan (p. 40). They are:

- The reading program in the Job Corps will be revamped based upon assessments of available educational materials and approaches.

- The characteristics of the educational program including teacher training, student/pupil ratios, materials developed at different centers, pay levels, gain rates, and enrollee perceptions will be determined in a comprehensive survey of education in Job Corps.
- A study of computer-assisted learning and other promising education approaches will select models for testing within Job Corps.
- Alternative educational enrichment approaches including those emphasizing (1) new materials, (2) computer assisted education, (3) teacher motivation and training and (4) pupil motivation, will be implemented in alternative centers under a carefully designed experimental program to determine which is most cost-effective in improving Job Corps learning rates.
- A data system and network would be established to provide for continuing additions to and adaptations of the various models and to assure their evaluation in a consistent fashion.

The Knowledge Development Plan states that the EIE should "yield some early evidence about ther impacts of different approaches on educational gain rates, dropout rates, and attitudes toward education." Further, it should "determine the longer term impacts of different education gains and further employability" and will attempt to aid in the identification of "potential early terminees in order to give them extra assistance." It is to enable the accomplishment of these goals that this evaluation has been designed.

CHAPTER 1 - REVIEW OF THE LITERATURE ON EDUCATION IN THE JOB CORPS

Corpsmembers enter at very low levels of actual educational attainment, despite having completed many more years of school than their attainment scores reflect. According to an ABT study based on Job Corps data, 66 percent of corpsmembers in 1969 had reading levels below sixth grade and 64 percent had similar math levels, while in 1971 the corresponding figures were 69 percent and 76 percent. Therefore, between two-thirds and three-quarters of Job Corps entrants have reading and math skills below the level necesary for the GED. Also, the study showed that virtually no corpsmembers (only 3 percent to 7 percent) have high school level skills.

According to past studies, most Corpsmembers show some gain during their Job Corps stay. In general, the lower the beginning level, the greater the gain. However, some studies indicate that this may be due more to remembering what had been forgotten rather than assimilation of totally new material. While nearly 80 percent of Corpsmembers in the introductory (below third grade) program showed gains in the 1969 data, 66 percent of those in the elementary program (third to sixth grades) showed gains, and this was further reduced to about one half of Corpsmembers showing gains in the intermediate (seventh and eighth grades) program.

Not only were fewer making gains, but those who did were gaining at a progressively slower rate.

About three quarters of all Job Corps participants have completed formal schooling only through tenth grade and those that stay in Job Corps the longest, have completed the least amount of schooling. This would indicate that those who need the program most (or know they have the fewest "outside" opportunities") opt for the longest stay. However, another study (Engleman, 1971) found that the educational level associated with longest length of stay was 6.3 grade levels on entry, perhaps indicating frustration at one end and boredom at the other.

Engleman (1971) found average gains to be .69 grade levels of 4.8 months (reading) and .70 (math). This rate was achieved by those at a 6.1 entry grade level. Also, the higher the entry level, the lower the rate of gain, and there was no significant difference between centers.

Math gains were more precisely correlated with length of stay than were reading gains; Engleman concluded that vocational education classes act more as reinforcers and refreshers for math rather than reading skills.

In general, while Job Corps participants' gains did not meet or exceed public school norms, they probably exceeded gains the Corpsmembers themselves had actually achieved in the public schools.

It must be cautioned that the gains testing of Job Corps was rather "hit or miss." There was wide fluctuations in gains reported, as much as .5/month. Thus, validity and reliability of procedures is highly suspect.

Only a minority of Corpsmembers are advanced enough at entry to eventually achieve a GED. It is difficult to determine from the literature just what percentage of Corpsmembers actually earn the GED, but at least one study suggests that a tenth of all enrollees and two fifths of those staying beyond four months (average stay is nearly six months) gain a GED. As of September 1978, approximately a tenth of enrollees were achieving the GED and three tenths at least entered the program. Of those taking the GED test, nine out of ten passed it and received a GED certificate. The higher the entry level (naturally) the greater the chance of earning the GED.

According to several studies, earning a GED is probably the most valuable benefit to be derived from Job Corps. While studies frequently mention that the vocational education segment is the most popular area with Corpsmembers, employers tend to regard Job Corps experience or vocational training as insufficient experience for the actual trade. Project Thresholds's (an experimental New York City halfway house) experience with Corpsmen and employers showed that:

> A high school diploma or GED is the best job

> preparation the Corpsmen can have.. Significantly more Corpsmen who have acquired GED's (High School Equivalency) retained their jobs longer as opposed to those who had no GED. The same relationship existed between pre-Job Corps high school graduates and those without GED's.... The diploma or GED shortened the time necessary to secure employment and usualy assisted the Corpsman in finding work that was directly related to his vocational goals and interests.

There are several important factors contributing to how satisfied the Corpsmember is with the education program and how much gain he or she attains while in the program. Besides length of stay and level at entry (as discussed above) the research suggests the following:

1. Correspondence between Corpsmembers's Pre-Entry Expectations and their perceptions of Job Corps actuality: The closer the fit, the more satisfied the Corpsmember. The most recent study (Mathematica, 1978) suggested that the education program (along with job training) is most likely to be rated positively among the various segments of Corpsmembers, and that it closely fits previous expectations. However, females, blacks, and older enrollees are more likely to rate the education program positively.

2. Alternation of Scheduling: Studies have found that alternating basic education with vocational training makes for higher Corpsmember satisfaction and better retention. The vast majority of enrollees view Job Corps as a job program rather than an academic program and higher satisfaction and greater correspondence with expectations is achieved if all Corpsmembers' programs include vocational education.

Indeed, in a few Conservation Centers where daily alternation was impossible due to the distance of work sites, this was felt to be a major cause of lower retention.

The main difficulty with alternating the two segments appears to be that vocational education presupposes competence in basic skills which Corpsmembers may only be acquiring. Thus, there is a need either to find materials and structure experiences to match Corpsmember levels, and/or to incorporate vocational content into the Basic Education Program. However, the first approach may further minimize the work experience value of vocational education, since the program may be so simplified that the experience does not correspond to actual work. The second approach may alienate Corpsmembers who want work experience, not more formal schooling.

If basic education courses are not specifically vocational in content, then the studies indicate that there should be "positioning of general education courses in terms of their relationship to economic self-sufficiency, e.g., the job itself, money management, career path, etc."

3. Feedback/Time Completion: Yankelovich found that Corpsmembers have a strong need for time-limited completions and quick feedback. In other words, Corpsmembers need to be able to measure progress through unit-completion type programs, have clear sense that they

are at a certain level, and have finished and "put away" previous levels. Also, Yankelovich suggests that Corpsmembers be given a prediction of just how long they need to stay in Job Corps to complete their stated goals, since those who feel it "could go on forever" are likely to give up due to lack of any sight of goal attainment

4. Remedial or Compensatory Education: According to work at the Omaha Job Corps Center, intense remedial reading programs were found effective only with those at 4.9 reading level or below. Other studies suggest that there is a stigma attached to being pulled out of the classroom or regular programs, or being assigned to a special program for the very lowest levels, so such remediation should probably take place within the normal setting

5. Incentives: The evidence for gains related to incentives is uncertain, but generally is unfavorable. In a study at the L.A. Job Corps Center, a $5 award was offered to counteract hypothesized apathy or antipathy to gains testing--if a gain was shown over the previous score, the award was made. There was no significant difference between the groups.

In experiments with points and token economy systems, the administrative "bookkeeping" requirements were found to be too complex and too time consuming, and to generate too many arguments and attempts to "beat the system" on the part of Corpsmembers.

Besides frequency and vitality of interaction, teacher attitude is a significant affector of student performance. Communicated concern, high expectations coupled with high confidence in students, and, in general, old-fashioned love and concern have a profound effect on student achievement. Many studies rate this as the most important determinant. This argues for programs with a high degree of teacher-student interchange as opposed to self-instruction.

In summary, the literature concludes that most Corpsmembers enter Job Corps at a very low educational level and make some gains, though usually not enough to earn a GED. Programs should have materials which are geared in subject to adults and which are perceived as directly relevant in content to employment and, particularly, vocational skills. However, while materials are an important area of concern for Corpsmembers, Corpsmember-teacher interaction is the most significant determinant of actual gains.

Receipt of the GED certificate shortens the time necessary to find a job, makes it more likely that the Corpsmember will find one close to his or her interests, and increases the Corpsmember's retention in a job. There is indication that a GED is the single best job preparation a Corpsmember can have. However, the majority of Corpsmembers enter at too low a reading/math level and/or stay too short a time to achieve the level necessary for the GED.

It has been found that scheduling close alternation of the academic and work experience segments leads to better retention in the program. However, Corpsmembers prefer the work experience and job training to basic education, and the vocational education is much more a break from the academic rather than vice versa.

Corpsmembers appear to view the purpose of Job Corps as job skills training and tend to object to segments which are reminiscent of their (frequently detested) experience with formal education.

APPENDIX A

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BIBLIOGRAPHY

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CHAPTER 2. ASSESSMENT OF EDUCATION IN JOB CORPS

As part of the Educational Improvement Effort (EIE) a survey was conducted to provide baseline information to aid in the determination of the need for and the methods of improving the Job Corps Basic Education and GED programs. The data contained in this section were obtained from a sample of 39 Job Corps centers. Of these, 15 were Civilian Conservation Centers (CCCs) and 24 were Contract Centers. The breakdown of centers by region is as follows:

TABLE 1

Description of Sample

Region	Contract	CCC	Total
3	5	0	5
4	4	4	8
5	3	1	4
6	5	3	8
7 & 8	3	4	7
9	2	0	2
10	2	3	5

This yielded 39 interviews with basic education directors or their designees, 380 interviews with teachers, and approximately 800 interviews with Corpsmembers. A complete listing of the sampled centers may be found in appendix A to this chapter.

Basic Education Direction Questionnaires

Specifically, the Basic Education Director Questionnaire yielded current data relating to such things as: what ongoing recordkeeping practices are; what tests, if any, are routinely being used to measure educational gains; what is the success rate of the existing GED programs; and what corporate-and/or center-developed materials are being used to supplement the basic program.

1. Educational Gains Measurement

Most centers are using the entry testing programs provided by Job Corps (the longstanding MJS1, MJS2, and RJS1 tests) for initial assignments into educational programs. Of the centers surveyed, 92.5 percent are using the MJS1 and MJS2 tests for mathematics placement, and 93.5 percent administer the RJS1 test for reading placement. Although the RJS and MJS tests are widely used, there are varying opinions concerning the effectiveness of these tests in determining educational competencies. A breakdown of this data may be found in Table 2.

Table 2

Table 2 Perceived Effectiveness of the RJS and MJS Tests

Basic Education Director Response

Perceived Effectiveness		RJS1	MJS1	MJS2
(Low)	1	14%	14%	3%
	2	16%	8%	3%
	3	31%	24%	17%
	4	27%	40%	36%
(High)	5	11%	14%	36%
(Don't Know)		1%		5%

A wide variety of individuals appear to be administering these tests. Table 3 shows the percentage of centers indicating administration personnel for the RJS and MJS tests.

TABLE 3

Administrative Personnel for Tests

Administrator	Percent of Centers Reporting	
	MJS1 and MJS2	RJS1
Teacher	33%	31%
Counselor	7%	3%
Orientation Specialist	20%	17%
Testing Specialist	11%	15%
Other	30%	34%

Data also indicate that there is no consistent time across centers when these tests are being administered. Eighty-two percent of the surveyed centers administer these tests during Corpsmember orientation week, but the day varies. Literature in the field of measurement indicates that many factors may influence test results, among these are numerous conditions within the individual. It is possible that placement results may be influenced by newness of surroundings, homesickness, the test administrator, etc. For these reasons, a fairly standard administration time for placement tests may be beneficial. While a procedure such as this could not guarantee consistency of Corpsmember placement across centers, it may serve to minimize, at least, some of these extraneous factors.

Educational gains are being measured in approximately 88 percent of the centers; however, a wide variety of instrumentation is being used for this purpose. Very few centers are using the MJS1 and MJS2 and/or the RJS1 to measure educational gains. Table 4 presents these percentages.

TABLE 4

Use of MJS1, MJS2, and RJS1 to Measure Educational Gains

Use for Gain Measurement	MJS1 and MJS2	RJS1
Yes	14%	4%
No	86%	96%

A wide variety of gains-testing instrumentation is being used. The SAT, Woodcock, LAC, and Sullivan tests are being used for reading pre-tests; LAC and SAT are being used for reading post-tests. For the mathematics program, centers indicate that the Woodcock/Key Math, American Guild, SAT, Section D/Unit Tests, and MJS1 are being used. These results indicate that enough divergence of instrumentation is being used that little comparative gain score information from one center to another could be considered valid.

Maintenance and storage of the test data vary widely from teachers' files to computer storage, with approximately 50 percent of the centers indicating that teachers do maintain these records, at least initially. Of the centers reporting, 60 percent state that educational gains records are only maintained while the Corpsmember is on center, while 33 percent indicate that they maintain these records longer than 12 months after the Corpsmember leaves. Again, these data demonstrate little consistency across centers.

2. GED Program

The data on the GED program provided relevant information about the existing curriculum and its implementation. Because of the wide variation in the size of the surveyed centers, there is considerable diversity in the number of Corpsmembers who enter the GED program on a per month basis. Seventy-two percent of the survey centers report 30 or fewer entering GED students per month. The remaining centers have anywhere from 30 to 100 Corpsmembers entering the GED program on a per month basis. Although this diversity is quite large, it is consistent with researcher expectation.

TABLE 5*

GED Data

Region	Total Job Corps Enrollment	Corpsmembers Eligible for GED		Eligible Corps-members Actually Enrolled in GED		GED Employees Completing GED	
		Number	Percent	Number	Percent **	Number	Percent
3	6,894	1,081	16%	695	64%	621	89%
4	18,471	3,690	20	2,125	58	785	37
5	6,039	714	12	635	89	344	54
6	23,660	4,157	18	1,997	48	1,530	77
7 & 8	14,960	1,852	12	1,673	90	1,436	86
9	3,281	823	25	562	68	472	84
10	8,127	1,825	22%	1,572	86%	814	52%

* Based on Job Corps National Office Data

**All percentages are rounded.

Basic education directors were asked to distinguish between students who enter the GED program when they arrive on center and those who come through the Basic Education program. Table 6 contains that data.

TABLE 6

How Students Enter The GED Program

Percentage of Total	Percentage of Centers Reporting	
	Students Enter GED on Arrival	Students Enter GED through Basic Education
Below 10%	33%	3%
10-20%	15%	0%
20-30%	15%	8%
30-40%	15%	3%
40-50%	3%	3%
50-60%	8%	8%
60-70%	0%	8%
70-80%	5%	11%
80-90%	3%	14%
90-100%	3%	42%

Eighty-seven percent of the centers surveyed report that students are placed in the GED program on the basis of test scores, but data also indicate that there is little, if any consistency in the utilized placement tests. The SAT advanced test is used by 55 percent of the centers reporting; 31 percent use MJS1 and RJS1, while 14 percent use other instruments. This suggests that comparable test criteria for placement into GED do not exist across centers. A further implication is that a single standard of test performance is not used for GED placement.

Approximately 29 percent of the reporting centers indicate that students can be placed into the GED program on the basis of criteria other than test scores or counselor recommendation. Placement into GED is further confounded by the fact that students can, in at least one center, be placed into the GED on the basis of only the counselor's recommendation. This further illustrates the lack of consistency of placement procedures across the centers.

The percentage of students who have successfully completed the GED program and test during the last three months and the percentage meeting state certification requirements also vary dramatically across centers. The data are presented in Table 7.

TABLE 7

Percentages of Students Who Pass the GED Test and Meet State Certification Requirements

Percentage of Students	Percentage of Center Reporting	
	Pass GED Test	Meet Certification Requirements
Below 10%	6%	0%
10-20%	11%	8%
20-30%	17%	11%
30-40%	6%	8%
40-50%	6%	5%
50-60%	14%	5%
60-70%	9%	5%
70-80%	6%	13%
80-90%	9%	11%
90-100%	17%	34%

Approximately 76 percent of the centers report that it takes three to six months for a student to complete the GED program. Only 11 percent of the centers report that they administer the GED test on center. A decision as to when the student is ready to take the GED test is made by the GED teacher in approximately 76 percent of the centers. In the remaining centers, a decision is made by the corpsmember, the counselor, the basic education supervisor, or another individual. For the 89 percent of the centers which send students to other locations to take the GED test, there is no single test location type. Some use the facilities of local high schools or colleges, while others use learning centers, county education offices, or career centers. There is no way to determine how comparable these testing facilities are or whether differential conditions affect the test results.

3. Innovative Materials in the Instruction Program

Data indicate that the majority of the surveyed centers are using either center-or corporate-developed materials to supplement the standard educational program required by Job Corps national policy. In the area of basic education, 84 percent of the centers report that they are using such materials, while 67 percent say that they are using them for the GED program. This fact results in an inference that the testing of new models should probably be done on an intracenter rather than an intercenter basis because the education program may vary widely from center to center. Approximately 80 percent of the reporting centers state that their supplemental materials are vocationally oriented; 83 percent of the sampled centers state that they have made changes to the prescribed basic education curriculum which they believe are making it more effective and efficient.

4. Staffing Patterns

Staffing patterns and teacher/student ratios vary from center to center. Table 8 presents the teacher/student ratio data.

TABLE 8

Teacher/Student Ratios

Ratio	Percent of Centers Reporting		
	GED	Math	Reading
Below 1:10	9%	6%	6%
1:10	14%	6%	18%
1:15	39%	47%	44%
1:18	17%	18%	20%
1:19	6%	0%	0%
1:20	6%	20%	9%
1:25	9%	3%	3%

A teacher/student ratio of 1:18 is considered to be the maximum that should be evidenced within the Job Corps program. These data show that 21 percent of the surveyed centers have ratios greater than this within GED; 23 percent in mathematics; and 12 percent in reading. This appears to demonstrate that at least some of the centers are currently understaffed.

Salary ranges for teachers also differ significantly, with the minimum salary as low as $9,500 and the maximum salary as high as $26,900. (for full-year teaching). Data obtained from the teachers as part of the attitude questionnaire indicate that teachers are not being comparably paid for experience across centers. There is apparently no consistency in salary range or in criteria for salary evident at this time.

Qualifications for teachers also appear to show some variations. Ninety percent of the centers reporting state that a bachelor's degree is required; 68 percent report that a state certificate is necessary; and 30 percent say that experience is necessary. There are, additionally, other differences relating to such things as areas of expertise and experience with minority/disadvantaged youth. Approximately 92 percent of the centers reporting believe that their staff is above average with regard to meeting minimum qualifications, and, yet, 33 percent of the sampled centers feel that minimum teacher requirements should be changed, while 67 percent do not want a change.

Eighty-four percent of the centers report that they do use teacher aides in the Basic Education programs, and 81 percent state that they use aides in the GED program. However, the type of aide utilized varies widely. The majority, 70 percent, are Corpsmembers, while others include volunteers, interns, and CETA enrollees.

Qualifications vary from anyone who has completed the Job Corps mathematics and reading programs to two years of college. Training ranges from none, to two years of college, to the same training as instructors receive. Salary ranges from none to $12,334 per year. Only 6 percent of the surveyed centers report that they have a vocational training cluster for aides. Again, because of differences in both qualifications and training, comparisons relating to the functioning of aides cannot be made on a center-to-center basis.

5. Accreditation

Carnegie units or high school credits that will be accepted by the states can be given in only 16 percent of the centers sampled. Only three centers report that they are accredited to issue a state high school diploma.

6. Placement Data

Approximately 63 percent of the centers report that they do keep placement data on Corpsmembers other than on Form 72 which is gathered on termination; however, the type of data which is maintained appears to vary widely. Approximately 26 percent of the centers which maintain placement data, keep records for 9-12 months, while 74 percent keep them longer than 12 months. Maintenance of follow-up data also varies dramatically. What is seemingly evident from the data also varies dramatically. What is seemingly evident from the data collected to date is that there is no consistent procedure apparent within the Job Corps for maintaining placement and/or follow-up data on Corpsmembers beyond the standard termination documentation.

There are several inferences which can be drawn from the data on the Basic Education Director Questionnaire. The first of these is that the teacher/student ratios lead one to believe that some centers may well be understaffed or are having difficulty filling vacancies. The number of vacancies vs. authorized slots is a major indicator of this. While aides are used in most centers, differential qualifications and training imply a lack of consistent utilization of these individuals to reduce teacher/student ratios and increase the one-to-one contact so vital to the effective use of programmed materials.

There is apparently no single totally consistent Basic Education or GED program in use in Job Corps centers. The core program is supplemented and adapted in a number of ways. Additionally, there is little consistent placement testing or gain testing procedure in evidence within the Job Corps at the present time. Coupled with this is the fact that there is no standardized recordkeeping procedure currently being utilized that yields the type of data needed on educational gains to continually update and improve the program.

TEACHER ATTITUDE QUESTIONNAIRE

The analysis of the Teacher Attitude Questionnaire was based on the tabulation of item means and the correlation between the total score on the attitude questionnaire and the demographic information which was asked. Additional correlations were computed utilizing portions of the questionnaire. The calculation of the item means provided information concerning general attitude on the specific question content. Calculation of the correlations provided information on whether there was a relationship between attitude and demographic data. It was believed that, if there were fairly strong correlations, the demographic data might be used as predictors of attitude.

Approximately 380 teachers in both contract and conservation centers were interviewed during the course of the study. The attitude items which were asked, were based on a 5-point Likert scale. On this type of scale, the ideal item mean is 3--the point of neutral opinion. If the item mean is 3, the inference is that there is a balanced mix between positive and negative attitudes. Only in this instance can the item have maximum potential to discriminate between persons of positive and negative attitudes. As the item mean departs from 3, the item is less and less capable of discriminating between these attitudes.

Questions were designed so that a high total score demonstrated a positive attitude toward the referent and that, correspondingly, a low total score meant a negative attitude. Using this as an overall rationale, it can be seen that an item with a mean greater than 3 shows that people feel positively about the object of the question and that an item mean less than 3 illustrates that they feel negatively about the subject. Scaling of each item took into account the positive or negative phraseology of each statement.

The frequency distribution of total scores for this sample may be found in Chart 1. The shaded portion of the graph includes all of the results above the midpoint of the possible score range (i.e., positive attitude). This suggests that teachers have a quite positive attitude about the Job Corps education program.

Analysis was performed on the 100 questionnaires with both the highest and lowest total scores (n=200). Consultation with expert statisticians and evidence from previous research showed that calculations based on a sample of this size are very close to those which would be obtained on data from the total available sample. The amount of measurement error involved in using this procedure has been shown to be very small. Table 9 presents the results which were obtained from the sample of 200 teachers. Results broken down into regional data may be found in Table 10. As can be seen from the item means, the teachers feel that their centers are good places to work in and that administrators treat them fairly (items 1 and 4). They

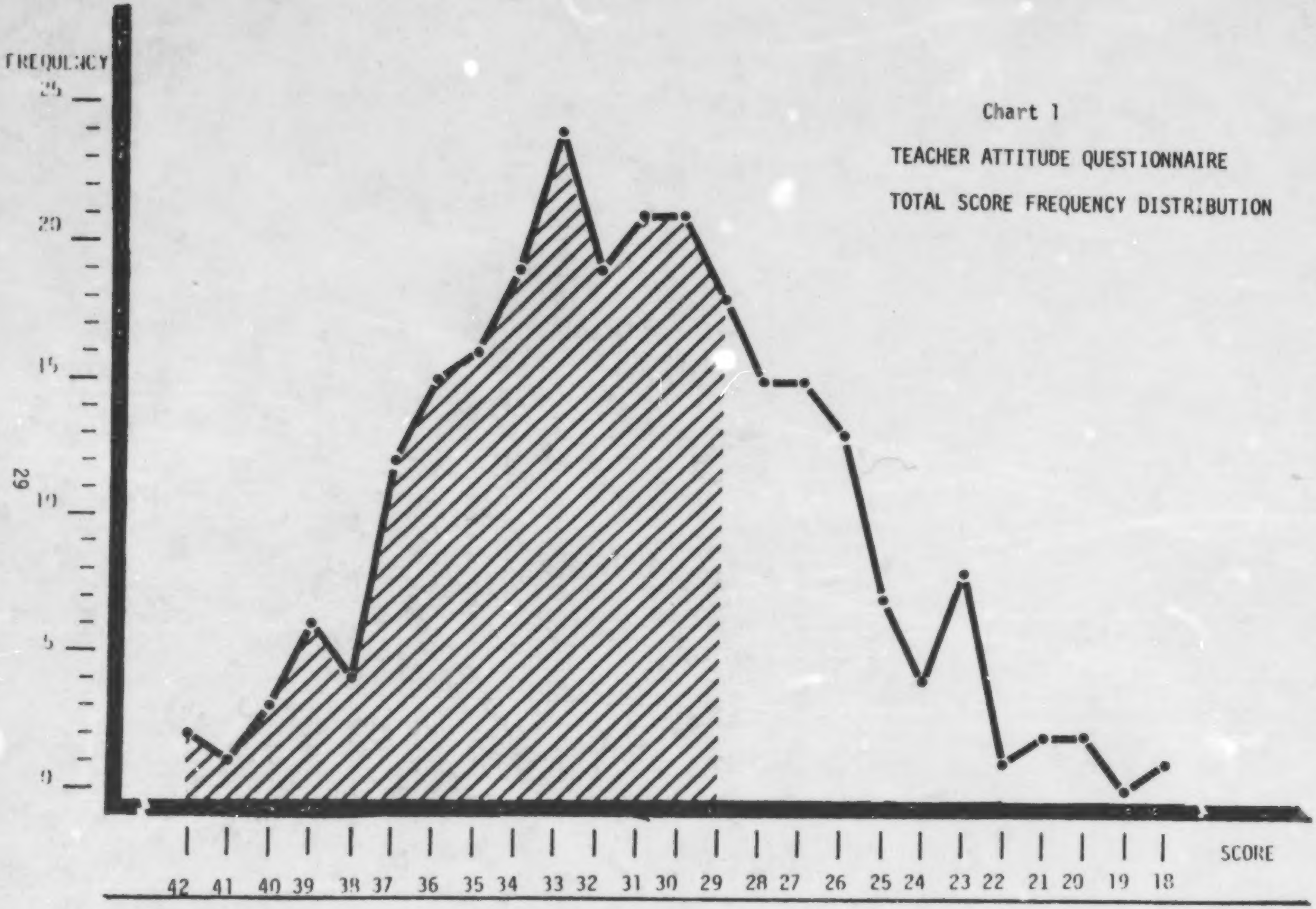


Chart 1

TEACHER ATTITUDE QUESTIONNAIRE

TOTAL SCORE FREQUENCY DISTRIBUTION

TABLE 9

Teacher Attitude Questionnaire

Item Means

ITEM NUMBER	ITEM	ITEM MEAN
1	This center is a good place for a teacher to work.	3.85
2	This job is interesting and challenging.	4.29
3	I get enough recognition for the task I'm performing.	3.33
4	The center administration treats me fairly.	3.67
5	If Job Corps teachers were paid more, they would be more effective teachers.	2.78
6	The materials and learning system which I use are not adequate for the task.	3.03
7	There are new materials that could help me do a better job in my area.	4.14
8	I would like to be able to develop curriculum materials on my own.	4.08
9	Working with programmed instructional materials gets boring for a teacher.	2.78
10	The students would be more receptive, depending on what I did.	4.30
OVERALL AVERAGE		3.70

TABLE 10

Teacher Attitude Questionnaire

Item Means By Region

ITEM NUMBER	ITEM	ITEMS MEANS							
		Region 3	Region 4	Region 5	Region 6	Regions 7 & 8	Region 9	Region 10	Total
1	This center is a good place for a teacher to work.	3.63	4.00	3.61	3.86	3.53	4.10	4.25	3.85
2	This job is interesting and challenging.	4.37	4.00	4.17	4.33	4.21	4.30	4.25	4.29
3	I get enough recognition for the task I'm performing.	3.21	3.22	3.11	3.28	3.76	3.40	3.35	3.33
4	The center administration treats me fairly.	3.16	4.05	3.44	3.63	3.41	3.90	4.10	3.67
5	If Job Corps teachers were paid more, they would be more effective teachers.	2.58	2.72	1.94	2.67	2.91	2.50	3.40	2.78
6	The materials and learning system which I use are not adequate for the task.	2.58	2.83	3.11	3.23	2.68	3.10	3.25	3.03
7	There are new materials that could help me do a better job in my area.	4.00	4.33	4.39	3.74	4.09	4.10	4.55	4.14
8	I would like to be able to develop curriculum materials on my own.	4.32	4.62	4.22	4.00	4.12	4.10	3.80	4.08
9	Working with programmed instructional materials gets boring for a teacher.	2.63	2.44	3.11	2.06	2.38	3.10	3.10	2.78
10	The students would be more receptive depending on what I did.	4.21	4.39	4.44	4.12	4.47	4.10	4.35	4.30
OVERALL AVERAGE		3.47	3.66	3.55	3.57	3.56	3.67	3.84	3.62

also feel quite strongly that their jobs are both interesting and challenging (item 2). Additionally, while their feeling about the adequacy of the existing educational program is basically neutral (item 3), they firmly believe that there are new materials which could help them to do a better job (item 7). The desire of teachers for new educational materials is bolstered by their belief that they can successfully influence student motivation (item 10).

A correlation coefficient represents a measure of association between two things. The range of the correlation coefficient (Pearson Product Moment) is from -1 to +1 with 0 showing no relationship ($r = -1 < 0 < +1$). The interpretation of this statistic is that a correlation greater than 0 ($r > 0$) means that the relationship is positive, and a correlation less than 0 ($r < 0$) means that the relationship is negative or inverse. As the correlation coefficient departs from 0 and gets closer to either -1 or +1, the relationship betweeen the two factors is said to be stronger. Table 11 contains the relevant correlations computed utilizing teacher attitude data.

TABLE 11

Teacher Attitude Correlations

CORRELATION	RESULT
Number of years teaching/total teacher attitude score	-.23
Number of years teaching in Job Corps/total teaching attitude score	-.20
Teaching hours per day/total teacher attitude score	.03
Salary/total teacher attitude score	.09
Teacher question 5/salary for teachers	.13
Average of teacher questions 1,2, and 3/salary	-.26
Average of teacher questions 1,2, and 3/number of years teaching	-.23
Average of teacher questions 1,2, and 3/teaching hours per day	.24
Average of teacher questions 1,2, and 3/student:teacher ratios	-.23
Average yearly cost of education per CMY/teacher overall satisfaction with administration	.22
Average yearly cost for materials/teacher question 6	.18
Average yearly cost for materials/teacher question 7	-.02
Average yearly cost for materials/average of teacher questions 6 and 7	.14

Several interesting conclusions are suggested by these correlations, although in most cases the results are more significant in terms of direction than in terms of degree of correlation.

1. Satisfaction and attitude toward the Job Corps education program declines with length of teaching experience and tenure in the program.

2. Longer teaching hours per day do not undermine satisfaction and attitude. In all likelihood, the teachers with less seniority have longer hours, so the more positive views of new teachers may be reflected in this correlation.

3. Teachers are more satisfied and positive when they have fewer students and can provide individualized attention.

4. The more teachers are paid, the more they feel that pay increases are required to make Job Corps teachers more effective. Satisfaction and attitude are inversely correlated with salary. It may be that salaries do not progress commensurately with seniority, and this may be the cause of the less favorable attitudes of senior teachers. On the other hand, negativism may be caused by tedium and lack of change, with the negative relationship between salary and satisfaction being explained by the relationship between tenure and salary.

In summary, it can be seen from these data that, while teachers view the Basic Education and GED programs positively, they do perceive some weaknesses in them. They do believe that, while the existing programs are adequate, there are new materials which could help them do a better job. The teachers sampled in this study firmly believe that student receptiveness to the program is dependent on what teachers do and that new materials would facilitate this effort.

STUDENT ATTITUDE QUESTIONNAIRE

The analysis of the Student Attitude Questionnaire was based on the tabulation of item means and the correlation between the total score on the questionnaire and the demographic information which was asked. In addition, correlations were computed utilizing relevant portions of the attitude questionnaire. The calculation of the item means provided information concerning general attitude on the specific question content. The calculation of the correlations provided information as to whether there was a relationship between attitude and specified demographic data. It was believed that, if there was a fairly strong correlation, the demographic data might be used as a predictor of attitude.

Approximately 800 Corpsmembers in both contract and conservation centers were interviewed during the course of the study. The frequency distribution of the total scores for this sample may be found in Chart 2. The shaded portion of the graph includes all Corpsmembers whose total score on the attitude questionnaire was above the midpoint of the possible score range (illustrating positive attitude). The analysis was performed on the 100 questionnaires with the highest total score and the 100 questionnaires with the lowest total score (n=200). The general consensus is that there would be very little additional

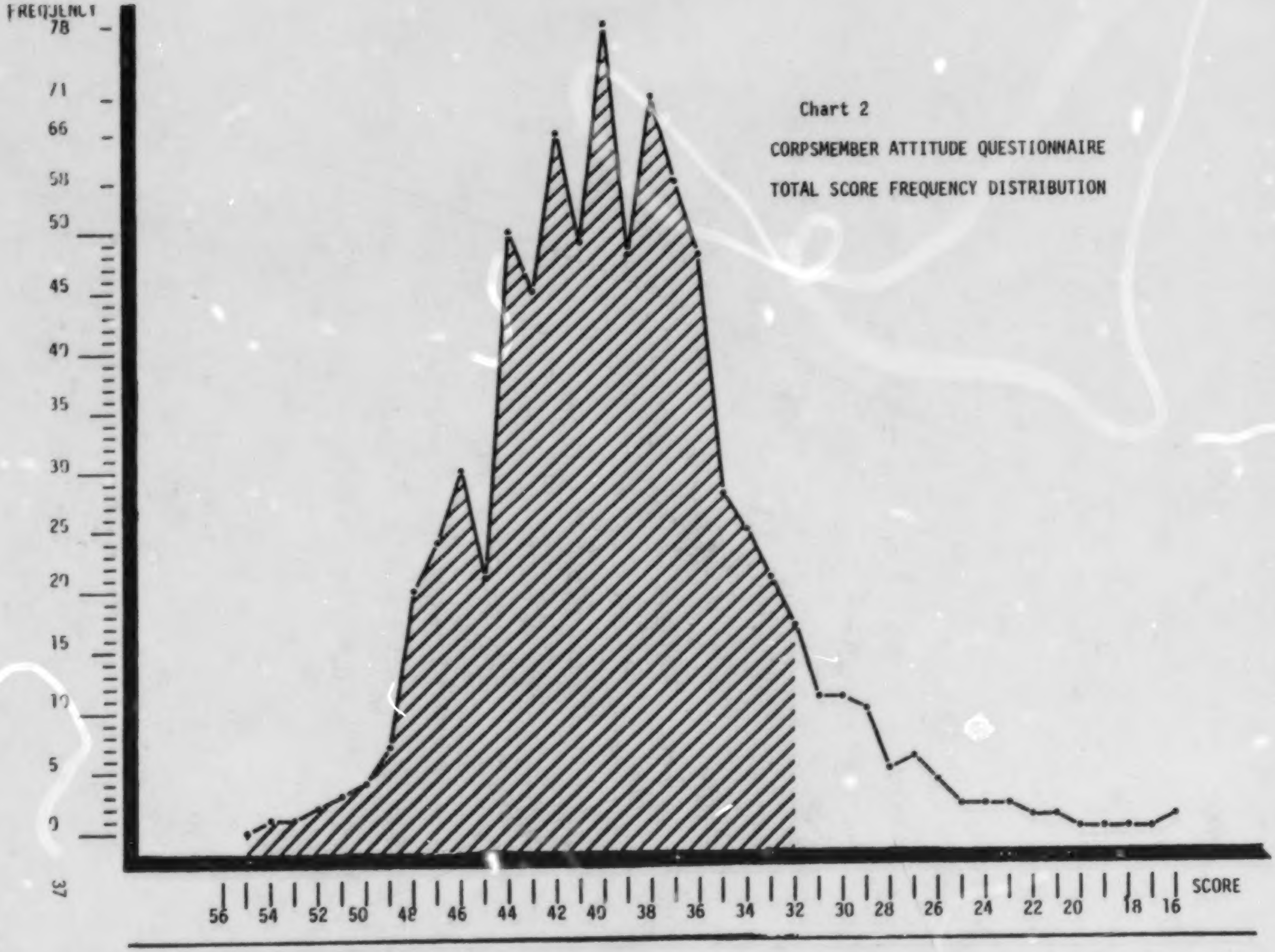


Chart 2

CORPSMEMBER ATTITUDE QUESTIONNAIRE

TOTAL SCORE FREQUENCY DISTRIBUTION

measurement error involved in using this procedure rather than total sample analysis. The item means which were obtained from the Corpsmember sample were very encouraging (Table 12, regional breakdown may be found in Table 13). The students appear to have a very positive attitude toward the Job Corps Basic Education and GED programs.

Corpsmembers feel that something should be done to make reading and mathematics more interesting. This independent assessment agrees with the belief of the teachers that, although the basic materials are adequate, there are new materials which could be better. In addition, Corpsmembers seem to feel, as evidenced by comments, that programmed instruction tends to get boring. This supports the use of supplemental learning aids.

What should be noted is that, for the sampled concepts, the Job Corps student likes what is happening. He feels that teachers are treating him fairly (item 6), that he is getting enough attention in class (item 5), that his teachers are friends (item 7), and that, above all, he is being respected as a person (item 8). Thus, in the eyes of the students, the teachers are performing far above an average level in these areas.

The Pearson Product Moment Correlations Coefficient, which was the statistic utilized for this analysis, determines the strength of

TABLE 12

Student Attitude Questionnaire

Item Means

ITEM NUMBER	ITEM	ITEM MEAN
1	Job Corps is giving me a chance of an education that I couldn't get any other way.	3.56
2	The education classes here are more interesting than when I went to school back home.	3.27
3	I learn more here than I did in school.	3.59
4	I wish they would do something to make reading and math more interesting.	3.54
5	My teachers give me enough individual attention in class.	3.63
6	I am treated fairly by my basic education or GED teachers.	4.04
7	I consider my teachers as friends here.	3.97
8	My teachers respect me as a person.	4.04
9	The people who go home from Job Corps early do so because the classes are too dull.	3.67
10	The education program is nothing like what I was told it would be in my orientation.	3.13
OVERALL AVERAGE		3.65

TABLE 13

Student Attitude Questionnaire

Item Means by Region

ITEM NUMBER	ITEM	ITEM MEANS							
		Region 3	Region 4	Region 5	Region 6	Regions 7 & 8	Region 9	Region 10	Total
1	Job Corps is giving me a chance of an education that I couldn't get any other way.	3.68	3.06	3.46	3.89	3.50	3.80	3.24	3.56
2	The education classes here are more interesting than when I went to school back home.	3.58	2.53	3.46	3.49	3.19	3.70	3.00	3.27
3	I learn more here than I did in school	3.58	2.82	3.77	3.74	3.62	3.80	3.88	3.59
4	I wish they would do something to make reading and math more interesting.	3.26	3.85	3.46	3.66	3.33	3.50	3.59	3.54
5	My teachers give me enough individual attention	3.53	3.29	3.85	3.72	3.76	3.90	3.41	3.63
6	I am treated fairly by my Basic Education or GED teachers.	4.26	3.79	4.15	4.02	4.07	4.10	4.12	4.04
7	I consider my teachers as friends here.	4.00	3.68	3.85	4.09	4.21	4.00	3.59	3.97
8	My teachers respect me as a person.	4.16	3.91	4.31	4.17	3.93	4.10	3.71	4.04
9	The people who go home from Job Corps early do so because the classes are too dull.	3.89	3.26	3.69	3.85	3.74	3.50	3.41	3.67
10	The education program is nothing like what I was told it would be in my orientation.	3.32	2.56	3.31	3.36	3.26	3.30	3.18	3.13
OVERALL AVERAGE		3.73	3.28	3.73	3.80	3.66	3.77	3.51	3.65

association between two things. The range of the Pearson r is from-1 to +1, with 0 showing no relationship (r=1<0 <=1). However, it should be noted that this statistic is accurate only for linear data. The correlations for Corpsmembers interviewed in this study are presented in Table 14.

TABLE 14

Student Attitude Correlations

Correlation	Result
Months in Job Corps/total attitude score	.04
Age/total attitude score	.02
Enrollment in Basic Education or GED/total attitude score	.27
Last grade attended/total attitude score	.11
Student question 5/student: teacher ratio by center	-.58
Average yearly cost for materials/student quest. 4	-.28
Teacher overall satisfaction by center (quests. 1-4) Student overall satisfaction by center (quests. 1-3)	.10

Several insights are suggested by these correlations:

1. There is no significant relationship between months in Job Corps and attitude or between Corpsmember age and attitude. Thus, perceptions about the Job Corps education program do not change, at least while the student is in the program.

2. Students notice and feel they benefit from individualized attention when the number of students per teacher is reduced.

3. Students are more satisfied with materials when expenditures for materials increase.

4. In centers where teachers tend to be more satisfied and have positive attitudes, students also seem to share this positivism.

5. Youth who are in the GED program are more positive about educational offerings than those in Basic Education.

APPENDIX A

SAMPLED CENTERS

CENTERS WHERE INTERVIEWS WERE CONDUCTED

Region	Center
III	Blue Ridge
	Charleston
	Keystone
	Maryland (Woodstock)
IV	Atlanta
	Breckinridge
	Crystal Springs
	Jacobs Creek
	Lyndon Johnson
	Oconaluftee
	Schenck
	Whitney Young
V	Cincinnati
	Cleveland
	Detroit
	Golconda
VI	Cass
	El Paso
	Gary
	Guthrie
	McKinney
	Quachita
	Treasure Lake
	Tulsa
VII and VIII	Clearfield
	Collbran
	Excelsior Spring
	Kicking Horse
	Mingo
	Pine Ridge
	Weber Basin

Region	Center
IX	Phoenix
	San Jose
X	Angell
	Ft. Simcoe
	Portland
	Timber Lake
	Tongue Point

CHAPTER 3. SELECTION OF EDUCATIONAL MODELS

The aim of the EIE is to test under controlled conditions the most promising models for educating economically disadvantaged youth. Selection criteria were developed from the unique needs and characteristics of the Job Corps population. The following criteria were applied to select programs which would meet those needs and be tailored to the subject population:

1. Materials and/or Techniques Geared for Adults

There are many innovative, effective and interesting educational materials and techniques; however, the vast majority have been developed in the schools for a primary or secondary school-age population. Particularly in the cases of materials designed for very early instruction (very low skill levels) the format, text, and illustrations are frequently juvenile and, as such, are regarded as insulting, boring, or inappropriate by Corpsmembers. To alleviate these problems, models have been sought which appear to be directed to adults, both in style and content.

2. Instructional Materials of Diverse Appeal

Care has been taken that model materials have sufficient diversity or generality to elicit high interest from either males or females, and that illustrations depict various racial and ethnic groups and males and females in diverse situations. Content should include cultural awareness subjects as well as women and men in non-traditional careers; all groups should be depicted positions of authority. In general, material was sought which would be neither sexist not racist, either by intent or omission and would present positive image with which Corpsmembers could identify.

3. Very Low Level Reading and Mathematics Instruction

Job Corps enrollees must be served at whatever level of capability with which they enter. Therefore, materials were sought which would aid the Corpsmember who could not read at all and had not previously acquired any mathematical skills. The chief difficulty in this search was to identify materials which, though they had to be at very low levels, were still adult in content and format. Frequently those materials designed for adult education begin at a third or fourth grade level; approximately one-third of entering Corpsmembers are below those levels.

4. Open Entry/Exit

Job Corps input is on a weekly basis, and Corpsmembers are free to leave whenever they feel they have reached their goals or feel the program is not meeting their needs. Thus, an instructional program must not depend upon the students' having to begin at a specific time in a school term, nor must the program require that a fixed time be devoted to it before the enrollee obtains results.

5. Individualized

Corpsmembers, as noted above, enter at different times, with very different skill levels, and progress at very different rates. Job Corps educational programs must be individualized: open entry/exit, self-paced, and available at many levels to accommodate the special needs of each Corpsmember, so that a Corpsmember can work alone or in a small group.

6. Programs Available in Spanish

Job Corps must serve bilingual Corpsmembers at all skill levels; i.e., those who cannot read in any language although fluent in both; those who can read in Spanish, but not English and those whose fluency is much greater in Spanish, although they may not read it. In certain cases, it may be appropriate to place the Corpsmember directly into an English language and reading program; in other cases it may be more appropriate to begin with a Spanish language and reading program. Also, implementation of Spanish programs aids cultural awareness and recognition for all Corpsmembers.

7. Preferred Comprehensive Programs

While high-quality programs in either reading or mathematics were selected in some cases, in general, programs which would provide a complete basic education curriculum were preferred. There are several reasons for this. First, a well-integrated program, one where all elements contributed to success in each area, was desired; thus, a completed program designed by a single developer was thought to be more likely to accomplish this. Second, evaluation comparability with other programs was more likely if each had the same emphasis. Third, implementation was easier if a package could be put in place as a whole, and materials and training could be coordinated by the developer.

8. Preferred Programs with Diploma Potential

Research has shown that a credential (high school diploma or GED certificate) is one of the most valuable results that can be obtained from Job Corps. However, since a GED is not based upon previous high school work completed, it may take longer for a Corpsmember to obtain a GED than a diploma. If a model program gives credit based upon previous work completed, a student may be able to obtain the remaining credits in the program, thus, receiving a regular high school diploma. Job Corps would then also have a means of recognizing younger Corpsmember's achievements, since in many cases the student must be 18 in order to earn a GED. In the case of a diploma, however, younger Corpsmembers could earn their credential before leaving Job Corps, an important factor in job placement.

In addition to the above eight criteria, there were several more obvious ones. Foremost among these was that programs were selected for general high quality appearance, sophistication of technique, recognition and incorporation of solid educational theory, and professional and well-designed materials. Also rating as very important was the developer's capacity to produce the requisite trainers and/or materials to meet implementation dates. For many educational programs, Job Corps has many more participants and requires much quicker start-up than many developers usually experience.

Since Job Corps wanted to avoid reinventing the wheel, several agencies were contacted in an effort to identify programs which had been used successfully elsewhere, even if only on a limited experimental basis.

Contact was first established with the Education Division, Department of Health, Education and Welfare (HEW). The Educational Improvement Effort (EIE) was discussed with a range of experts in the Bureau of Elementary & Secondary Education and the National Institute of Education (NIE).

The Education Division of HEW has established a Joint Dissemination Review Panel (JDRP) to review programs submitted to them for efficacy and reliability of evaluation. If the panel approves the programs, the program becomes part of the National Diffusion Network (NDN) is included in its directory, Educational Programs that Work, and is eligible for funds to disseminate its methods and materials. Thus, although many of NDN's programs do not meet our criteria, those that do were investigated for quality and replicability.

In addition to the Department of HEW, resources already existing in Job Corps were tapped. Several planning conferences were conducted. Besides providing feedback on proposed models generated by the above two methods, center personnel and consultants also suggested educational programs of which they were aware and with which they were impressed. Also, some center personnel recommended consideration of programs which were already being used on an experimental basis at some Job Corps centers. At least one model was suggested by Job Corps national office personnel.

Several program developers approached Job Corps on their own initiative. These programs were subject to the same investigation as programs identified in other ways. TEAM Associates, the contractor for EIE, had been responsible for developing one of the models.

The following chart lists the major programs which were considered for inclusion in Phase 1 in the EIE, how they were identified, whether they were selected as final models, and, if not, why not?

POTENTIAL MODEL SELECTION

MODEL	HOW IDENTIFIED	SELECTED?	WHY NOT?
Experience Based Career Education Northwest Regional Education Laboratories	NDN	No	Implementation at rural sites would be so difficult as to preclude its implementation Job Corps wide.
Individualized Learning for Adults-Research for Better Schools	NDN	No	Rejected by conference participants because of low-interest materials.
Classmate 88	Recommended by Detroit and Wood stock Job Corps Centers		
Computer Curriculum Corporation	Recommended by Job Corps consultant		Other computer curriculum judged to be more interesting.
Experimental Center for Reading Instruction (ECRI)	NDN	No	Methods only appropriate for children; not open entry/exit; not sufficiently individualized.
Vocational Reading Power	NDN	No	Material not comprehensive enough to substitute for entire basic skills curriculum. Retained for possible future use.

POTENTIAL MODEL SELECTION
(Continued)

MODEL	HOW IDENTIFIED	SELECTED?	WHY NOT?
Learning to Read	NDN	No	Of interest primarily to males; no math component; poor quality reproduction of materials.
Individualized Language Arts	NDN	No	Contact person never returned numerous calls.
Project Positive Attitude Toward Learning	NDN	No	
Systematic Teaching and Measuring Mathematics	NDN	No	Too juvenile.
Adult Performance Level Project	NDN	Yes	
Computer Assisted Instruction/Univ. of San Francisco	Recommended Job Corps consultant	Yes	
Help One Student to Succeed (HOSTS)	NDN	No	Decided to use existing Job Corps resources to train and provide same type of program
Cambridge Publishing Co. GED Program	Suggested by Job Corps Education Specialist	Yes	
Adkins Life Skills	Office of Education	Yes	
Staffing Model/ Peer Aides	Developed by TEAM Associates	Yes	
New Reading Program	Developed by TEAM Associates	Yes	

POTENTIAL MODEL SELECTION
(Continued)

MODEL	HOW IDENTIFIED	SELECTED?	WHY NOT?
Control Data Corporation/ PLATO	Job Corps approached by CDC	No	Program Library of courseware not sufficient
University of Illinois/ PLATO	Job Corps approached University of Illinois	Yes	
Math Program/ CEMREL	Recommended by former Job Corps Director	No	Not comprehensive enough.

As can be seen from the chart, this search yielded eight programs: one selected from the NDN, two developed by TEAM Associates, two recommended by individual Job Corps centers, one where the developer approached Job Corps, one recommended by the Office of Education, and one recommended by a Job Corps education specialist.

These eight models were selected because, in addition to substantially meeting the previously mentioned criteria, they also covered the entire spectrum of desired revisions, were innovative in their areas, and, in general, were quite different from both the regular Job Corps program and from the average public school programs.

In addition to these eight models, four others are included in the EIE study and are described in the following pages. With the exception of API, these latter models were developed based on several programmatic needs within an expanded Job Corps program.

In Phase II of EIE, models for bilingual education for Hispanics were carefully reviewed by the same criteria. Experts in Job Corps, HEW, and the Department of Defense were consulted. Likewise, a conference format was utilized to select models for identifying and treating Corpsmembers with learning disabilities. Detailed below are model program descriptions selected for the Educational Improvement Effort Program.

1. Adkins Employability Skills Series

The Adkins Employability Skills program is a model developed by Dr. Winthrop R. Adkins, Associate Professor of Psychology and Education at Teacher's College University. The Employability program is a series of ten problem-centered, predesigned units on selecting, finding and keeping a job. The overall purpose of the program is to help the student learn to cope successfully in a rapidly changing environment and to ensure that he can make use of resources available to him.

This model is currently being implemented in 130 locations throughout the country and in many CETA programs. It was designed for use by the economically and socially disadvantaged. In brief, it is a structured program requiring the student to demonstrate specific competencies.

The structured learning experiences in every program unit follows a four-stage model designed to foster behavioral change by engaging the student in self-analysis, goal-setting, and experimental activity. Stage One is the stimulus phase, designed to frame the problem and to create readiness to discuss it. The Employability Skills program makes use of emotionally powerful videotape recordings to arouse student interest in the unit. In Stage Two, the evocation phase, students are actively involved in defining the problem; students see that their input and experience in coping with the problems is important. The key here is learner involvement. In allowing the learner to name the problem and to participate in planning a learning strategy, he is more likely to accept the learning as relevant and thus, generate the self-motivation needed to reach his goal. In Stage Three, the objective inquiry phase, the students explore the world of work, obtaining information on a particular question from a variety of sources. Multimedia kits, which contain predesigned materials, also suggest ways for the student to utilize community resources.

The final stage, the application phase, is designed to ensure that students are required to demonstrate competence in performing the objectives set forth in that unit.

The Adkins model offers a balance between structure and freedom; the student is actively involved in the learning process and must take much of the responsibility for his own learning. At the same time, the program is structured enough so that students are given adequate guidance and direction.

This program includes an application phase in its design to help ensure carry-over of learning. The desired outcome is that knowledge and awareness gained during the stimulus, evocation, and objective inquiry stages will be translated into specific behaviors during the last stage of the learning cycle. Using this approach, world of work students are given opportunities to practice skills and behaviors they have learned, just as they do in vocational courses. Further, the Adkins model provides the student with more reinforcement then is contained in the present program. The peer group is used to provide feedback to the learner. Students gain the benefits of structured group and individualized instruction; they have a laboratory group so that they can test and practice skills and behaviors.

This model also incorporates full use of community resources to prepare the Corpsmember to function adequately in daily life, since the world of work is that world outside the classroom and the prepared tapes and kits. In order to conduct a relevant program, Corpsmembers need to experience contact with working adults.

Finally, the Adkins model provides the students with a structured, yet very positive, growth-oriented experience. Planning and decision-making skills are included as part of the curriculum to ensure that the Corpsmember is exposed to a method of making choices that will affect his/her life. When the Corpsmember leaves Job Corps, he/she may change jobs and even careers several times during his/her adult years. He/she needs a frame of reference to use to enable the structuring of alternatives, to see the consequences of choices, and to make satisfactory choices.

2. American Preparatory Institute (API)

API is a competency-based, open entry/exit system built upon self-paced instructional modules. To provide for a variety of training needs, API had developed a complete competency-based instructional and training system that is responsive to the needs of adult students. These students are seeking to develop and/or strengthen basic skills necessary for daily living, job advancement or preparation for further training, preparation for continued education, completion of a high school education and development or expansion of vocational and occupational competency. To meet each of the above needs, the training system consists of various program options that will result in:

- Basic Skills Development
- Certificate of High School Equivalency (GED)
- Developmental or Expansion of Vocational and Occupational Skills

Within each of the program options, the courses are based upon a well defined set of competencies to be mastered for course completion. These competencies represent the desire behaviors that adults must possess to be functional in the "real world." These competencies were isolated from various studies including the nationwide Adult Performance Level (APL) project conducted by the University of Texas, Austin, Texas. American Preparatory Institute was the first school to integrate the APL competencies into an accredited adult school program. Since the emphasis on the various program options is on skills mastery or proficiency, a trainee can demonstrate prior competence and advance to the next skill level. This competence is demonstrated by documentation of prior knowledge, experience, or training and through criterion pretesting and posttesting. Thus, a trainee demonstrates skills mastery for course completion and is not required to attend any specific course for a fixed time period.

The basic skills development program incorporates adult functional coping skills in its content. Placement consists of a diagnostic pretest whose items are referenced to specific skills, with functioning and frustration levels.

The GED program reviews fundamentals taught in the basic skills program, or learned prior to entry into Job Corps. The GED program provides instruction in developmental mathematics, developmental communications, developmental reading, developmental science, and developmental social studies. Reading skills are emphasized throughout all classes.

3. Adult Performance Level (APL)

The developers of the program, the University of Texas at Austin, surveyed the capabilities of adults throughout the country and found that certain skills were necessary to function in public life. These skills were subdivided into five categories: community resources, health, government and law, consumer economics, and occupational knowledge.

From these categories, modules were developed to enable students to gain the competencies they needed (For example: modules teach such things as how to find the correct bus route, get a driver's license, fill out income tax forms, or get food stamps). Not only are students taught these coping skills, but through performing the tasks, students also learn basic reading, language and computational skills.

Students are placed in the program through the APL survey instrument and are assessed for competencies by the content area measures designed for the above-mentioned five categories. The developer arranges with the local school board to grant a competency-based school diploma to those who successfully complete the APL program. APL is a total comprehensive program that can take students from elementary competency levels through high school levels.

4. Bilingual/English as a Second Language (ESL)

To supplement and contrast with the standard Job Corps ESL materials, screening resulted in the selection of the Defense Language Institute (DLI) audiolingual program. Two levels of DLI, the pre-elementary and the elementary, will be used. Under this model, the enrollee is completely enmeshed in the new language and no translated material is presented.

The bilingual approach of Hispanic enrollees simply translates standard Job Corps educational and vocational materials for use by enrollees and employs bilingual aids and instructors. The bilingual approach has an ESL component and the use of translated materials decreases as the enrollee's English capability increases.

5. Computer Assisted Instruction (CAI)/University of Illinois PLATO

The University of Illinois PLATO project has developed a computerized system that contains several thousand hours of courseware in over 80 separate subject areas. The PLATO Education Group has put together a selected package from this vast library, based on their previous experience, which can be used in conjunction with the Job Corps reading, mathematics, and GED programs.

Students work at individual terminals on PLATO lessons that are correlated with their regular Job Corps work. Two periods of each day are set aside for reading classes, two for mathematics, two for GED, and one period is used for remedial GED work. During the last period, students come to the PLATO lab on a teacher referral basis if they are unable to progress in one area in the regular classroom or if they have taken, but not passed the GED test.

PLATO incorporates innovative features in its hardware (such as the capability for students to make responses by touching the terminal screen) and uses these features in its software program design. In addition, PLATO keeps a continuous record of the student's time spent working and progress made. Finally, many lessons on PLATO are designed with extensive remedial branching so that students can get continuously varied practice in areas where they are experiencing difficulty.

6. CAI/CMI University of San Francisco/TEAM

This program was developed by the University of San Francisco and modified by TEAM Associates, Inc., to meet Job Corps requirements. The program consists of a combination of both computer-assisted (CAI) and computer-managed instruction (CMI) with the emphasis on CMI.

The current computer-managed reading program provides an individualized prescription for each student dependent upon the student's performance on criterion-referenced diagnostic and posttest. The computer-managed system also maintains student records in reading and math areas, making all information on students easily available to teachers and administrators.

The computer-assisted mathematics program uses student-operated terminals connected to a mainframe computer, which is programmed with assorted mathematics drill and practice programs designed to improve student skills. The computer is capable of giving instant feedback and continuously monitoring student progress.

A combination computer-assisted and computer-managed instructional

80

system is currently in use in the world of work program.

7. Modified CAI/CMI

The computerized education system just described will be expanded and modified to include complete CMI and CAI programs in reading, mathematics, GED and world of work. The University of Illinois PLATO system will also be incorporated as the basis of the CAI component.

The total computerized system will serve as a supplement to the regular Job Corps paper/pencil program in all four subject areas. Students will follow the normal Job Corps curriculum using the regular materials. However, PLATO and other CAI lessons will be available if the teachers feel that particular students would profit from this mode of instruction or remediation.

All education areas except world of work will operate on a diagnostic/prescriptive format that is managed by the computer. Tests will be scored by an optical scanner with the results being fed directly into the computer. A student matrix will be generated by the computer which allow students, teachers, and administrators to see which objectives students have completed, and which objectives remain to be completed.

8. CAI Math

The system consists of a math skill drill computer, which resembles a desk calculator, an instructor's guide, flowchart instructions for each drill, and a skill listing describing available programs. To operate Classmate 88, the student (or teacher) selects a drill for the skills area in which he/she needs practice, and consults the appropriate flowchart, which will detail the sequence of keys which need to be pressed to get the proper drill. The Classmate 88 then presents problems testing the requested skills. The student works the problem with paper and pencil, then punches the answer on Classmate 88.

If the student has made an error, the machine prints "E", then waits for another answer; if, after three tries, the student has not solved the problem correctly, he/she can see the correct answer by pushing a specific key. The print-out tape notes the he/she has done this. As soon as the correct answer is found (either by the student or by the machine), a new problem is generated.

Besides generating problems for individual practice, the teacher can use the machine to generate a specific number of problems, either with or without answers, and use these as homework, thus alleviating the problem of thinking up routine drills.

9. Cambridge GED

The Cambridge GED program provides a multimedia alternative to the regular Job Corps curriculum. Cambridge GED is based upon video/audio cassettes which teach individual lessons via lecture and example, coupled with a student workbook which provides supplementary drill for the content taught in the video presentation. This study will seek to determine whether this is a higher quality program than the Job Corps GED, whether it is more motivating for Corpsmembers, and whether or not it induces better scores and more rapid acquisition of a GED certificate.

Each Corpsmember is initially administered a practice pretest in a given subject area to determine instructional needs. Following a period of prescribed study, a posttest is given. Since the program is administered through self-paced individualized instruction, a high level of classroom management is required. Coordination with the state testing and certifying agency is necessary to ensure timely testing following the period of preparation.

10. Learning Disabilities

This model contains two programs designed to identify Corpsmembers with learning disabilities and to provide remediation and/or compensation skills intended to assist the students in overcoming their disabilities.

Extensive research was conducted by TEAM Associates, Inc., to ascertain programs that could serve the Job Corps population with learning disabilities. The research concentrated on non-medical models with intervention strategies which could be implemented by the regular Job Corps classroom teachers. In addition, programs which would keep identified individuals mainstreamed within the Job Corps program were desired so as not to introduce the psychological effects of isolating Corpsmembers. Two programs meeting these criteria in addition to regular Job Corps program criteria were identified, one developed by the University of Florida and one by the University of Kansas.

11. New Reading Program

Due to the large number of out-of-print, outdated, and unavailable materials in the existing Job Corps reading program, a complete update and revision of the program was undertaken.

The revised program closely follows the principle and design of the former reading program. It is based on an open-entry, open-exit individualized approach. Students with reading levels from illiteracy to grade level 10.0, are assigned into one of the three reading sections--beginning, graded, or advanced.

The beginning reading program uses the Sullivan Associates Programmed Reading System. The graded and advanced classes utilize nearly 3,000 selections from 20 different reading kits and series. These selections are the core of the graded and advanced systems. Students increase their reading level by reading selections and answering several comprehension questions on each selection. These materials were carefully selected to cover a wide range of topics that are of interest to young adults. Particular emphasis was placed on selecting materials on vocations and vocational training, minorities and women, and "survival" skills. Integrated into this developmental sequence are a language/study skills strand, a specific skills strand, and a supplementary and special use strand.

12. Staffing

The model utilizes carefully selected and trained Corpsmembers as teacher aides in several reading classes. The aides will initially take responsibility for correcting papers, doing simple recordkeeping, filing and other routine duties. The shifting of these duties from the teacher to the aides hopefully, will allow the teacher to spend more time on actual instructions. Aides are also used in working with individuals or small groups, providing assistance or instruction if necessary. The experimental model calls for teachers to work with an aide for half the day. The same teachers work without an aide for the other half of the day. Comparisons of reading gains are made of classes in which the teacher has an aide as opposed to those in which the teacher works alone. In addition to these objective measures, there are subjective evaluations based on interviews with administrators, teachers, Corpsmembers, and aides to help determine the feasibility of more widespread use of the model in Job Corps. Observations of increased one-to-one teacher time will be verified and documented by the monitors.

Chart 3

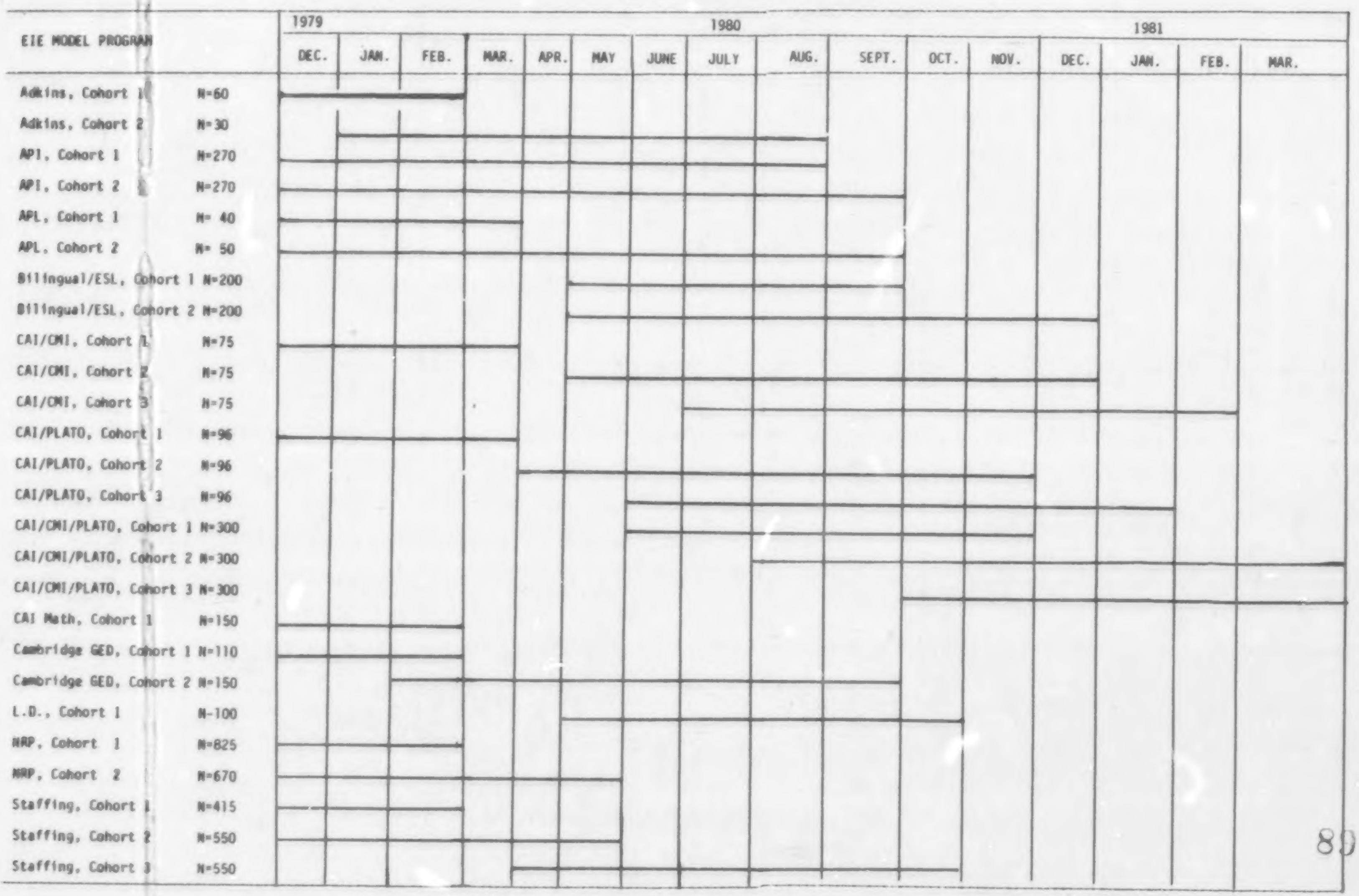
EIE - JOB CORPS

Experimental Centers and Models

CENTER	Capacity	MODELS											
		NRP	Staffing	CAI Math	GED	BTI	Plato	APL	Adkins	API	CMI	LDI	BLP
Breckinridge	2300	X	X		X							X	
Clearfield	1400	X	X				X						X
El Paso	250							X					X
Gary	2200	X						X			X		X
Gainesville	350											X	
Guthrie	630									X			
Phoenix	425	X				X							X
Pittsburgh	300								X				
San Diego	600												X
Tongue Point	440	X			X								
Woodstock	380			X					X				

CHART 4

EIE PROJECT SCHEDULE



CHAPTER 4. RESEARCH AND DEVELOPMENT

Design for EIE Models

Under the EIE research and experimental design, each of the identified models will be implemented in one or more Job Corps centers. Corpsmembers will be randomly assigned to a model program in an existing Job Corps component and the comparative programs will be tracked. There are variables in the design for specific models to address their special features. Entering corpsmembers will be run through the experiemntal and control models. The noted sample sizes, pertain to the first cohort only.

ADKINS EMPLOYABILITY SKILLS SERIES

Purpose: To ascertain if this multi-media approach to teaching employability skills produces more knowledge than that obtained from the traditional Job Corps World of Work program.

Sites: Pittsburgh (250)
Woodstock (430)

Design: One experimental cell (Adkins) and one Job Corps world-of-work cell per site.

Methodology: Incoming corpsmembers will be pretested using RJS1. Those Corpsmembers who score highly enough on RJS1 to be placed in graded reading according to the center's normal procedure will be randomly assigned to either cell of the design. The reading-level constraint is essential because of the level of both the Adkins materials and the evaluation instruments. No student being tracked for this model should be involved in any other model. All students will then be pretested using the Reading Comprehension and Mathematics Computation subtests of the Stanford Achievement Test, Form A. Additionally, students will be pretested using Form 1 of the combined ACT test which was developed for use in this evaluation. Students will then follow the curricula designated by the appropriate programs. After 90 instructional hours, all students will be posttested using alternate forms of the above mentioned instrumentation.

Hypothesis: It is believed that the multi-media approach of Adkins will result in the gain of more occupational knowledge than will the traditional Job Corps program. However, it is felt that the transfer of learning to reading and mathematics will be equal across both programs. It is further believed that modifications to the Adkins program as delieneated by the developer will have to be made in order to make the program feasible for use in Job Corps.

Analysis: The analysis of reading and mathematics gains will be the same as for other programs. A 2 sample t test will be the method of analysis for the ACT test.

Sample:

Pittsburgh	Woodstock
30	30

Experimental Sample: 60

Total Job Corps Sample (Experimental and Control): 120

API

Purpose: To ascertain if a programmed and systematized total package, including basic language and computational skills, will produce better educational results than a less unitized program such as the one now in use in Job Corps.

Site: Guthrie (630)

Design: One API cell and one traditional Job Corps cell per site.

Methodology: Upon entering Job Corps, students will be pretested using the RJS1 and MJS1 according to the center's normal orientation procedures. Based on the results of these tests, gross differentiation of students into beginning, graded and GED levels in reading and math will be made. Within each group, students will be matched and then randomly placed into either API or the regular Job Corps program. This leveling procedure will insure that people at all levels are equally represented in both experimental and control groups. Although it would be ideal to have a student placed in API use only the API materials, this may not be feasible from a center scheduling perspective. Therefore, the one large API cell will be broken down into reading, math, and GED components.

Students who fall in the beginning and graded levels of the program will be pretested using the Reading Comprehesion and/or Mathematics

Computation subtests of the Stanford Achievement Test, Form A. Those placed into API will take all necessary placement tests prescribed by that program. Students will then spend 90 instructional hours in their respective curricula. At the end of 90 instructional hours in content area (reading, math) students will be posttested using the alternate form of the above-mentioned SAT instruments. In addition, those involved with API will complete process evaluation questionnaires.

Insofar as the GED level is concerned, students entering the GED program according to the regular Job Corps procedures will be randomly placed into API or the Job Corps program. All students will then be pretested using the Official GED Practice Test, Form A. Students will then follow their respective curricula for 90 instructional hours. At the end of this time, students will be posttested using the alternate form of the above-mentioned instrument. In addition, those involved with API will complete process evaluation questionnaires.

Hypotheses: That a total program will prove more effective than a fragmented one over the long run, even if educational gains data do not illustrate a significant difference between programs. It is believed that the total program approach will enable students to progress through the various curricula at a more rapid pace, thereby lessening the overall time which they must spend in Job Corps in order to attain their personal goals.

Analysis: Reading and math gains will be analyzed as previously discussed for other programs; analysis of GED will be as delineated for other GED programs.

Sample:

Guthrie		
Reading	Math	GED
120	120	30

Experimental Sample Size: 270

Total Job Corps Sample (Experimental and Control): 420 (Same control group used for both API reading and math programs.)

APL

Purpose: To ascertain if a programmed and systematized total package--concentrating on essential adult coping skills and indirectly providing langauge and computational skills instruction leading to a recognized competency-based high school diploma or equivalent--will produce better educational results than will be less unitized instructional system such as the one now in place within the Job Corps.

Site: EL Paso (400)

Design: One APL cell and one traditional Job Corps cell per site.

Methodology: Upon entering Job Corps, students will be pretested using the RJS1 according to the center's normal orientation procedure. Based on the results of this test, students will be grouped into beginning, graded, and GED groups. Within each group, students will be matched and then randomly placed into either APL or the regular Job Corps program. This leveling will insure that people at all levels are represented equally in both experiemntal and control groups. Once a student is placed into APL, the individual will take all components of the ALP program, thus eliminating contamination of the design caused by crossover between programs.

Students who fall into the beginnng and graded reading levels of the program will be pretested using the Reading Comprehension and

Mathematics Computation subtests of the Stanford Achievement Test, Form A. In addition, they will be pretested using the ACT tests, according to program description. Students will then spend 90 instructional hours in their respective subject matter curricula. At the end of 90 hours, students will be posttested using the alternate forms of the above-mentioned SAT instruments. In addition, all those involved with APL will complete process evaluation questionnaires.

Insofar as the GED level is concerned, students entering the GED program according to regular Job Corps procedures will be randomly placed into APL and the Job Corps programs. All students will then be pretested using the Official GED Practice Test, Form A. These students will also take the ACT test. Students will then follow their respective curricula for 90 instructional hours. At the end of the 90 hours they will be posttested using the alternate form of the Official GED Practice Test. In addition, those involved with APL will complete process evaluation questionnaires.

Hypotheses: It is believed that a total program will prove more effective than a fragmented program over the long run even if educational gains data does not illustrate a significant difference between programs. It is also believed that the opportunity to obtain a high school diploma will be considered to be extremely important to Job Corps enrollees. Additionallly, it is believed that a total program will enable students to progress at a much more rapid rate because of coherence of programmatic materials. It is felt that considerations such as these need to outweigh educational gains data for this particular program.

Analysis: Reading and mathematics gains will be analyzed as previously discussed; analysis of GED will be as delineated for other GED programs. Analysis of ACT test results will be a 2 sample t tests.

Sample:

El Paso
40

Experimental Sample Size: 40

Total Job Corps Sample (Experimental and Control): 80

BILINGUAL/ENGLISH AS A SECOND LANGUAGE

Purpose: To ascertain the efficacy of providing Spanish speaking/reading Corpsmembers with little or no English language competency with either translated Job Corps materials and training in English as a Second Language or with just training in English as a second language.

Sites: Clearfield (1250)
El Paso (400)
Gary (2200)
Phoenix (415)
San Diego (600) - alternate site

Design: One bilingual/ESL and one ESL cell per site.

All incoming enrollees will be tested on the RJS1 according to normal center orientation procedures. Those scoring 8 or below on the RJS1 will be further orally screened to determine if they are Spanish speaking according to procedures already in use at the sites involved. A pool of entrants will be formed from this group and they will be randomly assigned to either ESL-Defense Language Institute (DLI), ESL Job Corps, or ESL-Bilingual. They will then proceed according to the component specific methodology delineated below. It should be noted that, in addition to program specific requisite tests, all enrollees in both the bilingual and the ESL components will be pretested and posttested on a standardized measure, i.e. the Peabody Picture Vocabulary Test on entry to the ESL portion of their training and on exit from that phase. In addition to the above test, all subjects will take Form A of the Reading Comprehension section of the Stanford Achievement Test (SAT) as a pretest on entry into the regular Job Corps educational program. All subjects also will be posttested after 90 hours in that program on Form B of the SAT. These tests will yield a short term measure of the increase in skills as measured by the Peabody as well as long term educational grade level gain as measured by the SAT.

A. ESL-Bilingual (ESL-BI)

This approach utilizes a bilingual instructor and Spanish translated materials while the Corpsmember is learning English with a gradual transition to no spoken Spanish and all written English materials.

Entering Corpsmembers will be placed in the program, be tested on the Peabody, and learn English by this combined method. The ESL component will be the DLI or alternate ESL program. Students will remain in this program for a minimum of 6 weeks, at which time the American Language Course Placement Test (ALCPT) will be administered. A minimum score of 40 on the ALCPT will be needed to proceed out of

ESL-BI into the Job Corps English Reading Program. The student scoring below 40 remains in ESL-BI until he attains that standard as measured by alternate forms of the ALCPT, A process questionnaire designed to measure satisfaction with the ESL-BI portion of the program and a pretest on the Peabody will be given on exit from this phase. When the Corpsmember qualifies for exit as determined by performance on the ALCPT, the JRCP1 is administered.

If the Corpsmember scores above 11 on the JCRP1, he/she is placed in the appropriate level of the graded reading program. If the score is below 11, placement is in Level A of beginning reading. These individuals will continue supplemental ESL-BI instruction on an as needed basis to be individually determined by the ESL instructor.

Approximately one month after the Corpsmember has entered the regular Job Corps program, the Reading Comprehension Subtest of the Stanford Achievement Test (SAT) will be administered. Form A will be used for this testing, administering Primary Level II to those in beginning reading and Intermediate Level I to those who have placed into graded reading. After completion of 90 hours in the reading program, a SAT posttest will be administered. The level of this, and subsequent posttests, will be determined based on individual performance as for the rest of the EIE study. After 150 hours in the Job Corps reading program, a second SAT posttest will be administered.

B. ESL Program - DLI

The ESL program to be used is the Defense Language Institute (DLI) audiolingual program. Two levels of DLI, the pre-elementary and the elementary, will be used. No translated material is provided and the enrollee is completely enmeshed in the new language, English. Placement into DLI is random from the same enrollee pool as used for placement in the bilingual/ESL program.

Entering Corpsmembers will be tested using the Peabody and will be given the DLI placement test, and will be placed in either the pre-elementary or the elementary levels of DLI. The DLI placement test is the American Language Course Placement Test (ALCPT). The test is composed of 100 questions are an oral test in which the student listens to a test tape. The remaining 40 questions test reading comprehension. The test score reveals the English Comprehension Level (ECL) and accurately places the student in either the pre-elementary or elementary phase of the DLI program. All answers to the test are recorded by the student on the ALCPT answer sheet. They will proceed in the ESL program for 3 hours per day with an additional hour of supplementation using the Sullivan beginning reading materials for a minimum of 6 weeks. At that time, an alternate form of the ALCPT will be administered. A minimum score of 40 on the ALCPT will be needed to proceed out of ESL into the regular Job Corps reading program. The student scording below 40 remains in ESL until he can attain that standard as measured by an alternate form of the ALCPT.

Corpsmembers then follow the same procedures as delineated for the ESL-BI phase.

It should be noted that the prescribed methodology described above accounts for only 4 periods per day. It is suggested that Corpsmembers be placed in mathematics classes for one period per day. The remainder may be used for additional supplemental reading instruction or other components of the Job Corps program at the discretion of the centers.

Centers will be asked for scheduling information so that it may be taken into account in the determination of results. Additionally, centers will be asked to be consistent in Corpsmember scheduling within each level of ESL.

CAI - COMPUTER ASSISTED INSTRUCTION

Purpose: To ascertain whether educational gains are significantly different for students who use a computer-assisted and/or managed instructional approach to learning rather than a noncomputerized traditional paper and pencil approach.

Two computer-assisted instruction (CAI) learning systems are included in this model. The first of these is PLATO and the second employs a BTI 5000 mainframe computer. Both systems include reading, mathematics, (above grade 3.0), and GED programs.

Sites: Clearfield (1250) - PLATO
Phoenix (415) - BTI

Design: One graded reading, one graded mathematics and one GED experimental cell; one graded reading, one graded mathematics and one GED regular Job Corps cell per site.

Methodology: All incoming Corpsmembers will be tested using the RJS1 and MJS1 and/or MJS2 according to normal orientation procedures. Those students who score at a level of 3.0 or above on these tests will be considered for inclusion in the experimental program. Both centers involved in this model have the new reading program and, in addition, Clearfield also has the staffing model. Insofar as the graded reading program is concerned, randomization of subjects into groups will take all relevant models into account (4-way at Clearfield and 3-way at

Phoenix). Insofar as mathematics is concerned, students will be placed in either traditional Job Corps or CAI curricula. No restriction of all or none scheduling regarding the CAI curriculum is being made because of center scheduling problems.

All students in this part of the model are pretested using the Reading Comprehemsion and/or Mathematics Computation subtests of the Stanford Achievement Test, Form A. They then follow the curriculum delineation of the program in which they are placed. At the end of 90 instructional hours in reading and 90 instructional hours in mathematics, all students will be posttested using the Reading Comprehension and Mathematics Computation subtests of the SAT, Form F.

For the GED portion of the model, Corpsmembers eligible for and entering the GED program according to normal Job Corps criteria, will be randomly placed in experimental and control groups. Students will then be pretested using the Official GED Practice Test, Form A. Students will then follow the curriculum of the program in which they have been placed for 90 instructional hours. At the end of this time, Corpsmembers will be posttested using the Official GED Practice Test, Form B. This procedure will enable the assessment of educational gain. In addition, for those taking the GED test, data will be maintained on GED test scores, pass/fail rates, and time-in-program required to complete the GED. All Corpsmembers, teachers, and Basic Education Directors involved with CAI will complete process evaluation questionnaires and those in the control group will complete brief attitude questionnaires.

Hypotheses: In the first cohort, there will not be a significant difference between CAI and non-CAI programs. This can be accounted for by newness of working with a computer and its system, etc. However, in the second cohort, there will be a significant gain difference. It is also believed that a decision between PLATO and BTI will have to be made on criteria other than gains - both should result in approximately equal gain, and a decision may have to be based on such things as CMI capabilities, cost, range of available programs, etc.

Analysis: Analysis for the graded program will be the same as that delineated for the new reading program and CAI Math models. GED analysis will be the same as specified for the Cambridge GED program.

Sample:

Clearfield	Phoenix
96	75

Experimental Sample Size: 171

Total Job Corps Sample (Experimental and Control): 342

CAI MATH

Purpose: To assess the systematic use of the Monroe Classmate 88 as a supplemental learning aid in the regular Job Corps mathematics program.

Sites: Guthrie (630)
Woodstock (430)

Design: One experimental and one control cell per site.

Methodology: Incoming Corpsmembers will be tested using the MJS1 and/or MJS2 according to normal center orientation procedures. Based on these scores, gross math levels will be determined. Within each level, students will then be randomly placed into treatment and control groups. All students will then be pretested using the Mathematics Computation Subtest of the Stanford Achievement Test, Form A. Students in the experimental cell will then take the regular program with the addition of a specified amount of drill and practice, at applicable levels, using the Classmate 88. At the end of 90 instructional hours, all students will be posttested using the Mathematics Computation Subtest of the SAT, Form B. In addition, teachers and Corpsmembers involved in the use of the Classmate 88 will complete process evaluation questionnaires to assess satisfaction with the program.

Hypotheses: There will be a significant difference in gain between treatment and control groups. However, process evaluation may show that teachers would prefer a supplemental aid that would allow input of specialized problems for several students.

Analysis: 2 sample t test on gain scores; where possible, ANCOVA within levels for intra-center analysis. The inter-center analysis will involve the use of the 2 sample t test to determine if there is a significant difference in gain between the two centers.

Since this program is already in place in both sites, albeit not well-defined or prescribed, it is not believed that a second cohort will be necessary in order to make a determination about the advisability of Job Corps wide implementation.

Sample:

Guthrie	Woodstock
100	50

Experimental Sample Size: 50

Total Job Corps Sample Size (Experimental and Control): 300

CAMBRIDGE GED

Purpose: To ascertain if a GED program employing a multi-media approach to teaching GED skills achieves a significant difference in the performance of students on the GED test and/or on the rate of acquisition of the GED.

Sites: Breckinridge	(2600)
Tongue Point	(480)

Design: One Cambridge GED and one regular Job Corps GED cell per site.

Methodology: Corpsmembers eligible for and entering the GED program according to normal Job Corps procedures will be randomly placed in treatment (Cambridge) and control (Job Corps GED) groups. All students will then be pretested using the official GED Practice Test, Form A. Students will then follow the curriculum designated by each program. Requirements may be modified depending on the specific needs of each student as evidenced by performance on the pretest. Thus, the Practice GED test will serve not only to familiarize Corpsmembers with the form and substance of a GED test, but will also provide evidence as to the pattern of strengths and weaknesses of each Corpsmember. This information should aid in reducing the time each student needs to spend in GED by providing training only in those areas where it is needed. At the end of 90 instructional hours, all students will be posttested using the Official GED Practice Test, Form. B. However, even more crucial to this program is the assessment of GED acquisitions. Therefore, scores which students taking the GED test obtain will be tracked; the pass/fail rate on the GED test will be tracked; and the amount of time which a student needed in program before the successful completion of the GED test will be recorded. Thus, assessment of the adequacy of the program will be based on a combination of educational data, GED test scores, and the rate of GED acquisition.

Hypotheses: It is believed that the results from the first cohort will show no significant differences between the two programs. However, it is felt that use of a second cohort will demonstrate a significant difference in favor of the Cambridge program. Literature appears to demonstrate that a multi-media approach to instruction is more effective than a paper and pencil method. It is felt that this will not be evidenced during the first cohort because modifications in the structure of the Cambridge program for the Job Corps population (adding drill and practice and lecture in some areas, for example) may be necessary in order to have the program function more effectively. These modifications could be based on the process evaluation questionnaires completed by teachers and Corpsmembers in the first cohort. With these changes in place, the performance of the second cohort in this program should be significantly better.

Analysis: A 2 sample t test on the gains while in the program, will be the basis of both the intra- and inter-center evaluations. This will be used between the two GED programs within each center and for the Cambridge GED across the two centers. If there is a significant difference in the gains in the two centers, demographic characteristics of the respective population will be studied as well as possible within center modifications to the program in an attempt to delineate causation. Additionally, within each center, study will be made of the pass/fail rates on the GED test and time-in-program in order to determine if these are significantly different between tha two programs in use at each center.

Sample:

Breckinridge	Tongue Point
60	50

Experimental Sample Size: 110

Total Job Corps Sample (Experimental and Control): 220

CMI ADAPTED MODEL

Purpose: To ascertain if a computer-managed instruction approach to diagnostic and gains testing, instructional prescription and student progress data will positively affect teacher/student interaction time and student progress through an educational program.

Site: Gary (2200)

Design: Three CMI cells and three non-computerized traditional Job Corps cells per site.

Methodology: Incoming Corpsmembers will be randomly assigned to CMI and non-CMI cells. Those in the CMI cells will then follow the CMI program description for all relevant parts of the Job Corps program. Those who are not involved in CMI will be pretested using the Reading Comprehension and/or Mathematics Computation subtests of the Stanford Achievement Test, Form A or the Official GED Practice Test, Form A. After 90 hours in the appropriate curriculum, students will be post-tested using the alternative form of the above-mentioned instruments.

Hypotheses: That a CMI systems approach will cause an increase in educational gains of those students involved in CMI vis-a-vis the non-CMI paper and pencil control groups. These effects will be based on several factors: increased Corpsmember motivation, usually associated with CMI-type educational programs; more individualized instruction prescription; and more time for teachers to teach.

Analysis: In addition to the analysis of educational gains, as delineated for other programs, several other factors will be considered. A comparison of the amount of teaching time directly spent with students will be made. This will be based on observational data collected by trained observers. Student motivation will be compared utilizing questionnaires administered to a sample of CMI and non-CMI students. In addition, analysis of the effect of lessening the amount of paper and pencil recordkeeping on the operation of the center as a whole will be made. This latter analysis will be based on discussions with center administrative personnel and teachers.

Sample:

Gary		
Reading	Math	GED
100	100	100

Experimental Sample Size: 300

Total Job Corps Sample (Experimental and Control): 500 (Same control group used for CMI reading and mathematics program.)

LEARNING DISABILITIES

Purpose: To assess the functioning of different programs for diagnosing learning disabilities and for teaching remediation and/or compensatory skills to those Corpsmembers who have a treatable learning disability which may hinder their performance in Job Corps.

Sites: Breckinridge (2600)
Gainsville (350)

Design: Four cells per site.

Methodology: Because of the nature of the Learning Strategies program, they will be treated differently from the other EIE models. Corpsmembers entering the centers will be given the RJS1 and MJS1 according to normal center orientation procedures. The belief of the researchers is that students with moderate to severe difficulties in learning will score 8 or below on the RJS1. Therefore, all Corpsmembers who fall into this category will be given the Stanford Achievement Test, Primary II, Reading Comprehension Subtest, Form A. We know from extensive EIE experience that this form of SAT test can successfully be given to this sample. Students will then be placed in regular Job Corps program. During the first six weeks in class, teachers trained in the program identification techniques will identify Corpsmembers in need of further screening as specified by each of the two programs. Those who do have a specific learning problem (or problems) will be matched based on the disability and will be randomly selected as either experimental (new strategies) or control (regular Job Corps program) in the ratio of 2:1 within their existing placement. Additionally, Corpsmembers who score at the same entry test level but who are not identified as having a specific learning problem will be randomly placed into experimental and control groups. The result is a 4 cell design involving randomization at two levels (those identified and those not identified). Students will be in the same classes with the difference involving the materials which are used. They will be given the tests which are designated by the particular program involved. At the end of 90 in-program hours, students will be posttested using the SAT Primary II, Reading Comprehension Subtest, Form B. They will also be given a process evaluation questionnaire. At this time, teachers and Basic Education Directors will also be given process evaluation questionnaires.

It should be noted that these programs are developmental in nature and are using strategies developed for non-Job Corp populations. Second cohort modifications will be made based on Job Corps experience. The program developers will turn reports in to the evaluators every three months. The content of these, in addition to data maintained by the researchers, will form the basis of program modifications.

Hypotheses and Analysis: It is the belief of the researchers that the strategies used in these programs will benefit all Job Corps enrollees. Even those individuals who are not identified as learning disabled may well possess skill deficits because the typical Job Corps enrollee is reading on a fifth grade lveel and has not obtained a high school diploma. The four cell design specified herein will enable the assessment of program impact on both identified and non-identified Job Corps enrollees. However, it should be noted that the n in each cell for each cohort is small enough where statistical significance may not be reached. Combining samples across cohorts, however, should provide a sufficient n for analytical purposes. Additional assessment of program impact will be made through use of process evaluation questionnaires designed to measure program impact.

The analysis for these programs will also consider other factors. Length of stay in program will be tracked to determine if the skills deficit remediation approaches contained in these two programs have an effect on enrollee retention. In addition, multiple regression techniques will be used in an attempt to isolate predictors of learning disabilities and to develop an equation to predict the existence of this type of problem. Data being collected in the rest of the EIE study is attempting to profile the early Job Corps terminee. The results of this latter analysis will be compared with the former in an attempt to determine similarities or lack of same. If, in fact, the two regression equations are similar, the early terminee may be leaving the program because of undiagnosed and/or untreated learning problems. This analysis should aid in the determination of whether skills deficit remediation programs need to be made widely available in Job Corps.

Additional use can be made of the existing EIE data base by matching on demographic and entry test characteristics those students who do not have available specific skills deficit programs. In this way, a more widespread determination can be made as to whether or not the skills deficit program has an impact on educational gain, retention of Corpsmembers, and/or program satisfaction.

NEW READING PROGRAM (NRP)

Purpose: To test the effectiveness of the New Reading Program (NRP) as related to the Old Reading Program (ORP), in terms of both accuracy of the placement procedure and the educational gains which the Corpsmembers attain in the program.

Sites:

Breckinridge	(2600)
Clearfield	(1250)
Gary	(2200)
Phoenix	(415)
Tongue Point	(480)

Design: One experimental (NRP) and one control (ORP) cell per site. However, within each of these cells, students will be broken down into beginning and graded reading based on RJS1 scores. This breakdown into levels will enable the assessment of both the educational gains for the program as a whole and a level by program interaction.

Methodology: Incoming Corpsmembers will be tested by the use of the RJS1 according to the center's normal orientation program procedures. Based on performance on this test, a gross placement differentiation insofar as beginning or garded reading placement is concerned will be made. Within each level (beginning or graded) students will be placed in either the new reading program or the old reading program. This assignment of Corpsmembers to programs will be made on a random basis.

(At Breckinridge and Clearfield which have the staffing model, beginning and graded reading placement randomization will also have to take this program into account. In addition, Clearfield has a CAI graded reading program, so graded reading randomization would have to be four-way.) This within-level randomization procedure will insure approximately equal sample sizes within a given level for analytical purposes; additionally, it should enable all programs to be represented in an equal manner at each site.

Corpsmembers involved would then be pretested using the Reading Comprehension Subtest of the Stanford Achievement Test, Form A. Assignment of students into appropriate levels of the SAT would be related to performances on the RJS1. Corpsmembers in the New Reading Program or the New Reading Program with aides, would then be tested using the JCRP1 for actual placement into the reading program. The programs would then be implemented according to their respective manuals or curriculum guides. At the end of 90 instructional hours, all students would be posttested using the Reading Comprehension Subtest of the SAT, Form B. At the same time as the posttest, Corpsmembers and teachers involved with the new reading program would also complete process evaluation questionnaires dealing with program satisfaction and the need for programmatic or implementation modifications.

Hypotheses: Because there is very little systematic difference between the new and the old Job Corps reading programs, there will probably not be a significant difference in educational gain. However, there are several ramifications other than educational gain which need to be taken into consideration. In the first place, it is possible that the gain in the new reading program may be less than that in the old program. In the first cohort, this could be due to lack of familiarity with the program materials and the placement procedure. However, the new program also contains much more content within each level, and students will probably not progress through levels as quickly as they have previously. This could account for less gain. However, it is believed that this increase in content and the addition of more relevant content will have a signigicant effect on the retention of learning and the motivation of Corpsmembers. Therefore, it is planned that a follow-up testing of the remaining sample will be done at 150 instructional hours using the SAT, Form A. Because of the time-lapse of approximately seven months, the repeat of the same form should not statistically influence the comparison.

Analysis: Analysis of covariance (ANCOVA), using the pretest scores as the covariate, is probably the most ideal procedure for the analysis of educational gains. However, it is believed that, for the total program, there will be a violation of the basic assumptions of ANCOVA (the homogeneity of regression assumption will most likely be violated.) If this does, in fact, occur, 2 sample t test on the gain scores will be used to determine if there is a significant difference. Additionally, the Analysis of Variance (ANOVA), using a randomized blocks design, would enable the determination of the program by level interaction (does one program work better for beginning reading students and another for graded reading students, etc.) The foregoing will be the main thrust of the intra-center evaluation of the new reading program as compared to the old.

In addition, comparison across centers can be done using an ANOVA model on the gain scores for the new reading program in order to determine if there is a significant difference across centers. If the ANOVA is significant, a multiple comparison procedure could be employed to ascertain where the difference lies. One could then look at the characteristics of the student population for the center to attempt to determine what factor(s) may have accounted for the differences.

Sample:

	Center				
Level	Breckinridge	Clearfield	Gary	Phoenix	Tongue Point
Beginning	75	80	80	20	33
Graded	100	160	160	50	67
Total	175	240	240	70	100

Experimental Sample Size: 825

Total Job Corps Sample (Experimental and Control): 1650

STAFFING MODEL

Purpose: To test the effect of the use of trained peer aides in the classroom for the new reading program. Peer aides will be used in both the beginning and graded reading classes.

Sites:	Breckinridge	(2600)
	Clearfield	(1250)

Design: Two new reading program cells (one beginning and one graded) and two new reading program with aides cells (one beginning and one graded) per site.

Methodology: Peer aides at or near graduation will be selected at both Breckinridge and Clearfield. They will be given a joint training program at Clearfield which will be approximately two weeks long and will include both human relations training and reading program training. Incoming Corpsmembers will then be pretested using the RJSI according to the center's normal orientation procedure. The methodology is then the same as that for the new reading program design with the exception of the use of peer aides in the beginning and graded classes. In each center, each of two teachers will be assigned a team of four trained Corpsmembers who will be designated as paid peer aides. The teachers will operate with the aides for one half of the day and without the aides for the other half of the day. The same Corpsmember group will serve both teachers during the day and will work with both beginning and graded reading students.

Hypotheses: It is hypothesized that the use of peer aides should enable the teachers to have more interactive teaching time to spend with Corpsmembers. It is also hypothesized that, particularly in the beginning reading classes, the aides will have a significant impact. In addition to assuming many of the non-teaching functions such as data collection and recordkeeping, aides should be able to give at least some of the individualized attention and drill which is needed at the lower reading levels. Further, it is felt that a second cohort would be beneficial in this model because it would enable the assessment of increased effectiveness of peer aides with increased familiarity with program materials and recordkeeping functions. Additionally, aide effectiveness should increase as the new reading program is further refined.

Analysis: The inter-center analysis precedure for this model is the same as that for the new reading program. Additionally, within each level of the program, a 2 sample t test will be used to determine if there is a significant difference between the new reading program with and without aides. Also, since the Clearfield center is now using aides in the old reading program, a 2 sample t test will be used to determine if there is a significant difference between the new and old programs. The inter-center analysis will be a 2 sample t test on the educational gains in the staffing model cells, only between Breckinridge and Clearfield to determine if there is a significant difference in the functioning of the model between the two sites. This analysis can be performed both on the total program and also within each level of reading. If a significant difference is found, demographic characteristics of the sample population and center program specifics will be used in an attempt to account for the differences.

In addition, a procedure to have monitors observe and record the number and length of one-to-one teacher/Corpsmember interactions will be developed. This aspect of the analysis will test whether the use of peer aides is enabling the teachers to spend a significantly increased amount of time with Corpsmembers.

In addition to the analyses which will be performed on data from the Corpsmembers and teachers involved with the staffing model, it is desired to determine what, if any, effect there is on the Corpsmembers who act as aides. This model will involve both existing Corpsmembers and graduates of Job Corps as program aides. This fact will enable the determination of several interesting side effects to the educational gains of the Corpsmembers who are being tutored by the aides.

In the first place, by administering reading comprehension pretests and posttests to the aides, it will be possible to determine if the interaction which the aides will have with the Corpsmembers has any effect on the reading ability of the aides. Therefore, educational gains in reading will be measured for the aides. In addition, because aides will be both Corpsmembers and graduates, it will be possible to determine whether there is a differential reading gain rate for these groups. Because the number of aides involved is so small, virtually nothing could obtain a level of statistical significance. Also, it is not wise to base a definitive determination on so small a sample. However, this additional data should help in a determination of the viability of an aide program for reading within Job Corps as a whole. All of the above information, in addition to the type of information which is being gathered and analyzed relating to all of the models, will enable the Department of Labor to make a more informed decision regarding using aides within Job Corps on a more extensive basis than they are currently being used.

Sample:

Level	Breckinridge	Clearfield
Beginning	75	80
Graded	100	160
Total	175	240

Experimental Sample Size: 415

Total Job Corps Sample (Experimental and Control): 930

CHAPTER 5. THE EXPERIMENTAL DESIGN AND INSTRUMENTATION MECHANISMS

The Educational Improvement Effort (EIE) was designed to follow a random assignment/experimental design controlling for major factors. Despite extensive controls achievable in the Job Corps setting, researchers do not have control over all extraneous intervening variables. However, there is an effort in the design and its implementation to control variables as much as possible, and to provide adequate data for statistical adjustments where the method breaks down. The experiments in each center have been established with detailed reporting and assignment procedures. In the implementation of models, efforts were made to assure that these were not simply assigned to the best teachers. Under the contract, outside monitors regularly review EIE implementation and supervise the random assignments of youth into the models. With a data system which records daily input and transfer of enrollees within the system, it is possible to quickly spot and correct for variances in the random assignment procedures. In all of the models and their controls, the same general procedures are followed, as noted in the previous descriptions of the designs for identified models.

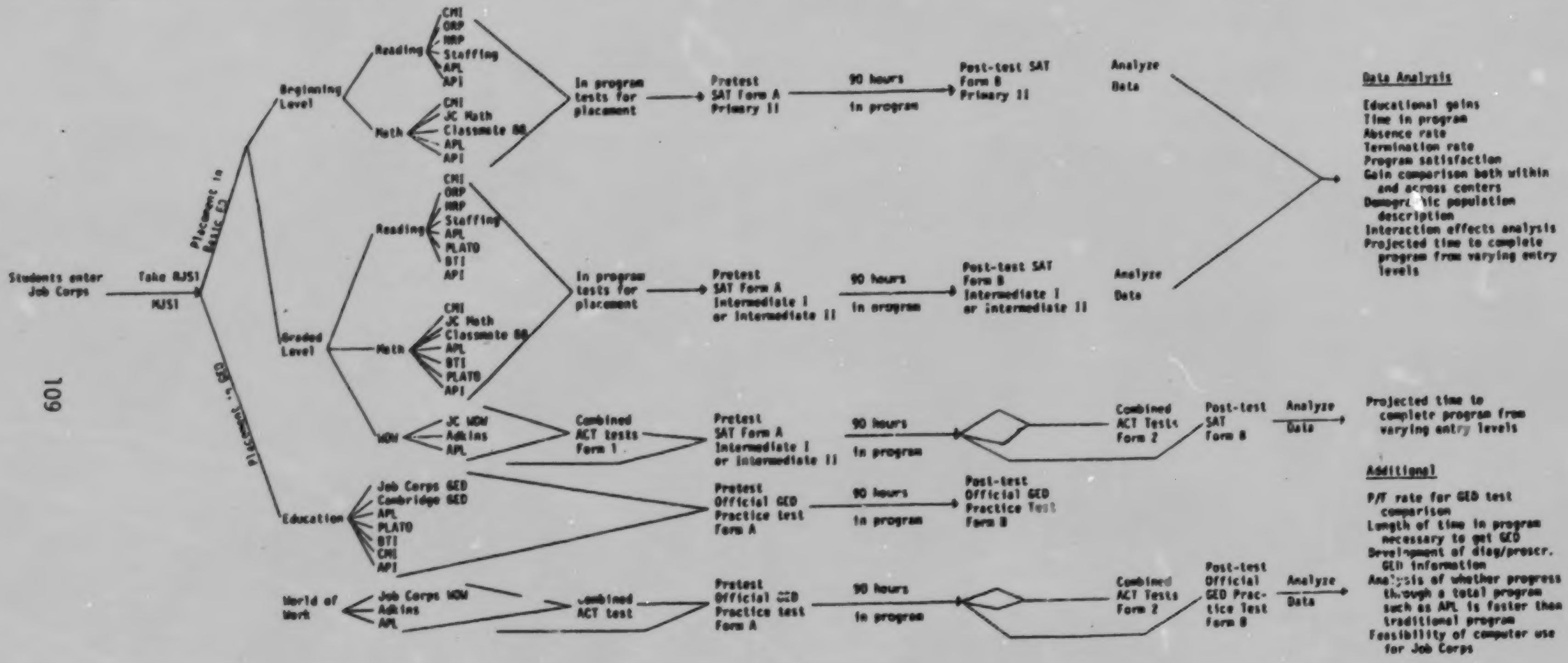
Entering Corpsmembers are tested on the RJS1 and MSJ1 according to the normal orientation procedures of the centers. Based on the results of these tests, eligibility for experimental programs is determined (some programs have entry level reading and/or mathematics capability requirements). Once eligibility has been determined, the Corpsmembers are randomly assigned to groups. After the Corpsmembers are placed into an education program, they are pretested using either the Reading Comprehension and/or the Mathematics Computation subtests of the Stanford Achievement Test (SAT) for programs at the beginning or graded levels, or on the Official GED Practice Test for programs at the GED level. Appropriate levels of SAT testings are determined from grade level translations from the RJS1 and/or MJS1. The SAT was chosen as the measure of gain because it had been extensively used in Job Corps before, it is within the educational capability scope of most Job Corps enrollees, and the centers were familiar with its use. In addition, the normative and technical data on this test is extensive and it had been normed, at least to some extent, on a group similar in characteristics to the Job Corps population. The test had alternate forms and was available at enough different levels of educational capability to cover the full scope of the Job Corps population. (See Chart 5)

The original design called for posttesting after 90 in-subject content hours and for the posttesting of all terminating Corpsmembers who had participated for more than 30 content hours. However, obtaining this latter posttest presented numerous problems. Most of the Corpsmembers terminating from Job Corps do so in such a manner, i.e., AWOL or sudden exit, that the on-site monitor does not get enough advance notice to schedule a posttesting session. There have

Chart 5

Programmatic Flowchart

E I E Program


Students enter Job Corps
Take MJSI
MJSI
Placement in Basic Ed
Placement in GED
Beginning Level
Reading
CMI
ORP
NRP
Staffing
APL
API
Math
CMI
JC Math
Classmate 88
APL
API
In program tests for placement
Pretest SAT Form A Primary II
90 hours
in program
Post-test SAT Form B Primary II
Analyze
Data
Graded Level
Reading
CMI
ORP
NRP
Staffing
APL
PLATO
BTI
API
Math
CMI
JC Math
Classmate 88
APL
BTI
PLATO
API
In program tests for placement
Pretest SAT Form A Intermediate I or intermediate II
90 hours
in program
Post-test SAT Form B Intermediate I or intermediate II
Analyze
Data
Data Analysis
Educational gains
Time in program
Absence rate
Termination rate
Program satisfaction
Gain comparison both within and across centers
Demographic population description
Interaction effects analysis
Projected time to complete program from varying entry levels
WOW
JC WOW
Adkins
APL
Combined ACT tests Form 1
Pretest SAT Form A Intermediate I or intermediate II
90 hours
in program
Combined ACT Tests Form 2
Post-test SAT Form B
Analyze
Data
Projected time to complete program from varying entry levels
Education
Job Corps GED
Cambridge GED
APL
PLATO
BTI
CMI
API
Pretest Official GED Practice test Form A
90 hours
in program
Post-test Official GED Practice Test Form B
World of Work
Job Corps WOW
Adkins
APL
Combined ACT test
Pretest Official GED Practice test Form A
90 hours
in program
Combined ACT Tests Form 2
Post-test Official GED Practice Test Form B
Analyze
Data
Additional
P/F rate for GED test comparison
Length of time in program necessary to get GED
Development of diag/prescr. GED information
Analysis of whether progress through a total program such as APL is faster than traditional program
Feasibility of computer use for Job Corps

also been numerous occasions when the existing Corpsmember has flatly refused to take a posttest. Forcing the issue would result in invalid data.

Therefore, as the study has progressed, certain modifications had to be made to the research design because of the non-laboratory setting of the experiment. Students who are suspected of termination will be posttested at 50 in-program content hours in order to supplement the data based. Students who remain in the program will be posttested at 90 in-program content hours and again at 150 hours. Additionally, there will be a one year posttest for all EIE enrollees who are still in Job Corps in order to assess the learning curve and retention of learning in experimental vs. control program enrollees. In order to increase Corpsmembers willingness to take the requisite posttests, an incentive payment of $5.00 or $10.00 will be made for various posttests.

Additionally, as preliminary data were analyzed, it became evident that some Corpsmembers were ceiling out the SATs. The original plan called for the use of the same level of test, alternate form, at the 90 hour posttest. This has been modified to take the ceiling effect into consideration. Subsequent levels of the SAT are determined on an individual basis dependent on results of the previous SAT. There is sufficient overlap in the SAT to enable moving four levels without contaminating the data metric, so this new procedure should not be a problem statistically.

The EIE Data Collection System has been designed to capture relevant data on all Corpsmembers involved in the study. A description of the hardware may be found in the Educational Improvement Effort Evaluation Design (TEAM Associates, Inc. 1979) and details of the procedures may be found in the Data Collection Guide for Educational Improvement Effort Project (Texas Educational Foundation, 1979). The system operates by data transmission by means of optical scanner via phone line to a central computer. The data is then edited, reports are sent to the site for corrections, and the corrections are then transmitted. Once the data is correct, it is transferred to a permanent file where Corpsmember data remains as long as the individual is an active participant in the study. Once the Corpsmember is terminated from the study, the data is transferred to a termination file where it is permanently stored.

The data collection system contains information on active and inactive Corpsmembers in the EIE, at all Job Corps centers involved in the study. In addition, the system contains message capability allowing rapid communication from site to site and enabling the evaluators to communicate with individual sites or with sites simultaneously. Data is compiled for review in two forms--weekly summaries for each site, and year to date summaries containing cumulative information for each site on a program by program basis. These reports allow the evaluators to be continually aware of the status of each program and enable almost immediate discerning of difficulty relating to the EIE communications network.

Considering the complexity of the data collection network, relatively few difficulties have been encountered. Errors relating to the data collection program are corrected by TEF (Texas Educational Foundation) with program modifications being made as the need arises. Thus, in some sense, the network is still in the formative stages. Hardware breakdown has caused some delays in data transmission at several sites. These problems have become increasingly more frequent as the study has progressed. Equipment suppliers are attempting to determine the causes of the problems to alleviate the difficulties.

The closer the maximum level of Corpsmembers in the EIE study becomes, the greater the volume of data collected, transmitted, and stored. There have been minor difficulties with disk file storage space and with ability of on-site monitors to transmit data because of system overload. However, in light of the large amount of information in the data base, data collection difficulties have been minor inconveniences rather than major problems. The continued cooperation of all those involved in the development and management of the data collection system has greatly facilitated its effectiveness.

The data file will contain significant amounts of information on each

Corpsmember participating in the study. The demographic data on record will include all that is on the Job Corps screening sheet (ETA 6-52), plus model and attendance information. The test data file will contain date of test, name of test, form of test, raw score and number of class periods scheduled at the time the test was given. Test scores will be on file for all placement tests (i.e. RJS1 MJS1, JCRP1) and for all evaluation instruments (i.e. SAT, GED Practice Test, APL/ACT revised). The primary data forms are in the appendix to this chapter.

In addition to the above-mentioned educational tests, a sample of Corpsmembers will complete process evaluation questionnaires. These questionnaires will contain questions pertinent to Job Corps and questions relating to specific model programs. Questionnaires relating to the impact of the model programs on both the Job Corps educational program and the center will be completed by teachers and Basic Education Directors involved with these programs. Because of the nature of these latter instruments, computer scoring and tabulation is not possible. Therefore, these will be forwarded to the researchers at TEAM Associates, Inc.

All of the data transmitted to TEF will be maintained in an active file until the Corpsmember terminates. Upon termination from either the model or the Job Corps program, a Corpsmember's data will be placed in a termination file. All data will be retained by TEF pending other notification from the Department of Labor.

All data to be collected will be compiled by the full-time monitor on-site and then forwarded to TEF. The specific data to be collected is dependent upon the particular model program and is delineated in Chapter 3 of this report. The interested reader may also consult the Data Collection Guide for Educational Improvement Effort Project (TEF, 1979) for further details.

In general, however, the period of data collection begins when the Corpsmember arrives on-center and continues through one year, if the Corpsmember remains active. All test data, demographic data, attendance data and drop-out data will be transmitted to TEF on a weekly basis. Transmission errors will be noted by TEF and the monitors will resubmit the data. On-site printers will also give monitors a printout of their transmission. As had been previously stated, the EIE data file will contain enough data to enable many different types of analyses. Some of the specific analyses will not be determined until data from the first cohort in each model has been examined. As with other segments of this evaluation, the design for data analysis is model-specific. However, there are certain procedures which are general across most of the models. The measurement of educational gains by either SATs or GED tests is relevant to all models. Within site, 2 sample t tests will be used to determine whether or not there is a significant difference in educational gains between programs.

In addition, the data bank will contain demographic as well as educational gains information on each participant. Therefore, Pearson Product Moment Correlations between such demographic variables as sex, last grade completed, age, and race with educational gain will be calculated. These can be done for the entire sample, for a specific center or region, for a specific model, or for a combination of model and center. If preliminary data analysis so indicates, multivariate procedures will be used to discern which combination of demographic variables is the best predictor of educational success (defining educational success as either educational gain, attainment of GED, or other relevant variable).

Insofar as the GED data are concerned, by the end of this study, enough programs will have been tried with a large enough sample in each to enable the researchers to accurately calculate the percentage of enrollees in GED who successfully pass the state GED exam. Information will also be available on the amount of time it takes a Corpsmember to obtain a GED. Further, with the use of APL, information on the percentage of Corpsmembers who desire a high school diploma rather than a GED should be available. This will enable the Department of Labor to make a decision regarding what should be done, if anything, in the way of expanding the diploma-granting capability of the Job Corps.

The analysis of the LD and Bilingual/ESL models is not based primarily on educational gains. Rather, with these two programs, the concern is with increasing the Corpsmember retention rate. It will be possible to compare the percentages of early drop-outs between centers with and without these programs. This will enable the Department of Labor to make decisions regarding the feasibility of expanding these programs within Job Corps.

The analysis of the computer programs (BTI, CMI and PLATO) will be based on Corpsmember educational gains and on other factors. Because of the cost of these programs, emphasis will be placed on such things as increased Corpsmember motiviation and data management capabilities. Therefore, the analysis here is concerned with overall capability in the center, not just with instructional capability.

Because of the vastly different nature of the programs contained within this study and of the sites wherein programs are being implemented, the analysis of each model program will be done separately. Only in this way can each be given a fair and equitable evaluation.

The EIE evaluation is a study of various types of educational programs. However, the success of those programs depends to a large degree on the perception of the Corpsmembers. Therefore, as a supplement to the basic EIE research, in-depth interviews will be conducted with a small sample of experimental and control group Corpsmembers at each of the involved centers. The on-site interviews will be conducted in these stages:

Stage I - First 48 hours with the emphasis on how the Corpsmember came to enter Job Corps and his/her initial perceptions.

Stage II - 75 to 90 days with an emphasis on what has happened during this time and how the Corpsmember feel about the last 3 months.

Stage III - Exist interviews with the emphasis on how ready the Corpsmember believes he/she is to enter post-job Corps life.

The Corpsmembers who are interviewed for this phase of the EIE study will also be followed after they leave the Job Corps. There will be two followup interviews conducted with these individuals at 90 days and 240 days after exit.

While information from these interviews will not be subjected to detailed statistical analysis, it should provide valuable data about strengths and weaknesses of the Job Corps program that cannot be obtained from an objective-based questionnaire. These data will provide an overall framework which would not otherwise be available.

APPENDIX

DATA COLLECTION FORMS

DATA RECORD

CENTER CODE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

SOCIAL SECURITY NUMBER

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

STUDENTS LAST NAME

A	A	A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

FEED THIS DIRECTION

HOME STATE CODE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

HOME ZIP CODE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

NUMBER OF DEPENDENT CHILDREN

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

HIGHEST SCHOOL GRADE COMPLETED

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

MONTHS OUT OF SCHOOL

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

DELETE ○ CORRECTION ○

FEED THIS DIRECTION

JOB CORPS
EDUCATIONAL IMPROVEVMENT EFFORT
DATA RECORD

SCAN-TRON®

FORM 2142 JC

790420 790517

DATE OF BIRTH

JAN ○	0	0		0
FEB ○	1	1		1
MAR ○	2	2		2
APR ○	3	3		3
MAY ○		4		4
JUN ○		5	5	5
JUL ○		6	6	6
AUG ○		7	7	7
SEP ○		8	8	8
OCT ○		9	9	9
NOV ○	DAY		YEAR	
DEC ○				

JC ENROLLMENT DATE

JAN ○	0	0		0
FEB ○	1	1		1
MAR ○	2	2		2
APR ○	3	3		3
MAY ○		4		4
JUN ○		5		5
JUL ○		6		6
AUG ○		7	7	7
SEP ○		8	8	8
OCT ○		9	9	9
NOV ○	DAY		YEAR	
DEC ○				

NUMBER IN FAMILY

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

ESTIMATED ANNUAL FAMILY INCOME

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

DATA RECORD

SIZE OF TOWN

LESS THAN 2,500	1
2,500 - 50,000	2
50,000 - 250,000	3
MORE THAN 250,000	4

ETHNIC GROUP

1	AMERICAN INDIAN
2	ASIAN
3	BLACK
4	HISPANIC
5	WHITE
6	OTHER

SEX

MALE	1
FEMALE	2

MARITAL STATUS

SINGLE	1
MARRIED	2
DIVORCED	3
WIDOW (ER)	4
SEPARATED	5

ENGLISH COMPETENCE

1	GOOD
2	FAIR / POOR
3	NONE

FEED THIS DIRECTION

REJECTED BY ARMED FORCES

YES	1
NO	2
NOT APPLICABLE LEAVE BLANK	

LANGUAGE SPOKEN IN HOME

1	AMERICAN INDIAN
2	SPANISH
3	ITALIAN
4	GERMAN
5	POLISH
6	RUSSIAN
7	FRENCH
8	HUNGARIAN
9	ENGLISH
0	OTHER

IF SO, WHY?

PHYSICAL	1
MENTAL	2
OTHER	3
NOT APPLICABLE LEAVE BLANK	

FEED THIS DIRECTION

TYPE OF DISCHARGE

HONORABLE	1
GENERAL	2
UNDESIRABLE	3
BAD CONDUCT	4
DISHONORABLE	5
NOT APPLICABLE LEAVE BLANK	

WELFARE RECIPIENT

1	YES
2	NO

RESIDENTIAL CODE

LIVING ON CENTER	1
LIVING OFF CENTER	2

ENVIRONMENTAL FACTORS

1	SUBSTANDARD LIVING CONDITIONS
2	DEFICIENT OR DISRUPTIVE HOME
3	POTENTIALLY HARMFUL SPARE TIME ACTIVITIES
4	LIMITED JOB OPPORTUNITIES

NAME ____________________________________

STATUS RECORD

CENTER CODE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

SOCIAL SECURITY NUMBER

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
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0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

JOB CORPS
EDUCATIONAL IMPROVEMENT EFFORT
STATUS RECORD

MODEL CODE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

FEED THIS DIRECTION

MODEL ENROLLMENT DATE					MODEL TERMINATION DATE					STATUS	
JAN ○	0	0		0	JAN ○	0	0		0	1	
FEB ○	1	1		1	FEB ○	1	1		1	2	
MAR ○	2	2		2	MAR ○	2	2		2	3	
APR ○	3	3		3	APR ○	3	3		3		
MAY ○		4		4	MAY ○		4		4		
JUN ○		5		5	JUN ○		5		5		
JUL ○		6		6	JUL ○		6		6		
AUG ○		7	7	7	AUG ○		7	7	7		
SEP ○		8	8	8	SEP ○		8	8	8		
OCT ○		9	9	9	OCT ○		9	9	9		
NOV ○	DAY		YEAR		NOV ○	DAY		YEAR			
DEC ○					DEC ○						

SCAN-TRON®

FORM 2143 JC
790420 791107

TEACHER NUMBER

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

SCHEDULE CODE

DAILY	○
BIWEEKLY	○

CORRECTION ○

WEEKLY NUMBER OF PERIODS ASSIGNED IN THE MODEL

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

NUMBER OF CLASS PERIODS MISSED (-)

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

NUMBER OF CLASS PERIODS CREDITED (+)

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

TERMINATION RECORD

NAME ____________________

JOB CORPS
EDUCATIONAL IMPROVEMENT EFFORT
TERMINATION RECORD

CENTER CODE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

SOCIAL SECURITY NUMBER

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
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0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

JC TERMINATION DATE

JAN ○	0	0		0
FEB ○	1	1		1
MAR ○	2	2		2
APR ○	3	3		3
MAY ○		4		4
JUN ○		5		5
JUL ○		6		6
AUG ○		7	7	7
SEP ○		8	8	8
OCT ○		9	9	9
NOV ○	DAY		YEAR	
DEC ○				

TYPE OF TERMINATION

TRANSFER	○
DISCIPLINARY	○
AWOL	○
ADMINISTRATIVE	○
MEDICAL-DEATH	○
TRANSFER ACT	○
RESIGNATION	○
COMPLETER	○
MAX BENEFIT	○

CORRECTION	○

TIME LOGGED ON THE COMPUTER (CAI ONLY)

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

COMMENTS

TEST RECORD

NAME ____________________

CENTER CODE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

SOCIAL SECURITY NUMBER

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
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0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

TYPE OF TEST

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

JOB CORPS
EDUCATIONAL IMPROVEMENT EFFORT
TEST RECORD

DATE OF TEST

JAN	1	0	0		0
FEB	2	1	1		1
MAR	3	2	2		2
APR	4	3	3		3
MAY	5		4		4
JUN	6		5		5
JUL	7		6		6
AUG	8		7	7	7
SEP	9		8	8	8
OCT	10		9	9	9
NOV	11	DAY		YEAR	
DEC	12				

FORM

A
B
C
D

RAW SCORE

0	0	0
1	1	1
	2	2
	3	3
	4	4
	5	5
	6	6
	7	7
	8	8
	9	9

1 PRE - TEST
2 POST - TEST

SCAN-TRON®

FORM 2144 JC

791017 791017

G.E.D. ENGLISH SCORE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

G.E.D. SOCIAL STUDIES SCORE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

G.E.D. SCIENCE SCORE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

G.E.D. READING SCORE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

G.E.D. MATH SCORE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

G.E.D. TOTAL SCORE

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

STATE CODE OF G.E.D. EXAM

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

TIME LOGGED IN COMPUTER (CAI ONLY)

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

☐ DELETE CORRECTION ☐

FEED THIS DIRECTION

PROCESS EVALUATION QUESTIONNAIRES

BASIC EDUCATION DIRECTOR PROCESS EVALUATION QUESTIONNAIRE

BASIC EDUCATION DIRECTOR PROCESS EVALUATION QUESTIONNAIRE

MONITOR INSTRUCTIONS

This questionnaire is designed to be given in an interview setting. All of the questions require open-ended responses. Please write down as much as you can of the response; if you can not get it all down, please make sure that you do not lose any crucial information. The completed questionnaire is then to be forwarded to the researchers at:

TEAM Associates, Inc.
Suite 510
1625 I Street, N.W.
Washington, D.C. 20006

The questionnaire should take about one hour to administer and is to be given at the end of the first cohort for each model program. Please tell the Basic Education Director that we realize the questionnaire may get repetitive if there is more than one model program on center, but the only way we can insure a complete evaluation is to request that he/she respond for each program.

Name ______________

Center ______________

Basic Education Director

Process Evaluation Questionnaire

1. Has the center had to spend any additional money because of the pilot testing?

   a. Yes

   b. No

   If "yes", on what was the money spent?

   ____

   ____

   ____

   How much money was spent? $______

2. Has the experimental program had any effect on the scheduling of teachers?

   a. Yes

   b. No

   If "yes", what changes had to be made?

   ____

   ____

   ____

3. Has the experimental program had any effect on the scheduling of corpsmembers?

   a. Yes

   If "yes", what changes had to be made?

   ____

   ____

   b. No, skip to question 5.

4. If you had to reschedule students to pilot test this program, how workable have you found the new schedule?

   a. Very workable; new schedule presents no major problems and the center should continue this schedule.

   b. Workable, but still have some problems.

      Please explain ____

      ____

      ____

   c. Not workable, not beneficial to corpsmembers or staff.

      Please explain ____

      ____

      ____

5. Who chose the teachers who participated in the experimental program?

   ____

   ____

6. The following are possible criteria used in teacher selection. Please rank them in order of how important they were to whomever selected participating teachers. (Please use "0" if a criterion was not a consideration.)

   a. ______ teacher's excellence as a teacher

   b. ______ teacher's desire to participate

   c. ______ teacher's availability

   d. ______ teacher's knowledge of specific subject area

   e. ______ other (specify ______________________________)

7. What staff members (other than teachers and the basic education director) have been involved with the pilot test? ____________

____

____

8. How were these staff members chosen? ______________________

____

____

9. How were these staff members utilized? ____________________

____

____

10. Did the materials, equipment, and/or personnel for the experimental program arrive when they were expected?

a. Yes

b. No

11. Was it necessary for someone at the center to follow up on the materials in order to ensure their arrival?

a. Yes. What did the follow-up involve? __________________

____

____

b. No

13. Did the fact that the experimental program had to be kept discreet from the rest of the center pose any problems?

a. Yes. Please explain ______________________________

____

____

b. No

14. Did corpsmembers who were not in the experimental group express any interest in the program?

a. Yes

b. No

If yes, how was this handled? ______________________________

____

____

15. Did corpsmembers who were not in the experimental program express any resentment at not being allowed to participate in the program?

a. Yes

b. No

If yes, how was this handled? ______________________________

____

____

16. Please describe teacher feedback regarding this model.

a. Did teachers see it as beneficial for the students involved?

____

____

b. Any negative feedback? ________________________________

____

17. Would you be willing to continue this program at the center?

Why or why not? ____

____

____

a. Yes

b. No

18. Would you recommend this program for use throughout Job Corps?

a. Yes

b. No

Why or Why not? ______________________________

____

____

19. Is this program applicable to the needs of Corpsmembers?

a. Yes, definitely

b. Somewhat

c. No, not at all

On what are these comments based? ______________

____

____

20. How would you rate teachers' attitudes toward using the program, before it began?

a. Everyone was very positive

b. Most teachers were positive, but a few were negative

c. They were neutral

d. Most were negative, but a few were positive

e. Everyone was negative

21. Did attitudes change after using the program?

a. Nearly everyone became more positive

b. Little or no change

c. Nearly everyone became more negative

22. In general, how easy was the program to implement?

1	2	3	4	5
Very easy			Very hard	

23. Would you like to use this program instead of the current corresponding Job Corps program?

   a. Yes

   b. No

   Please explain ____

   ____

   ____

24. How does this program affect the amount of paperwork with which the teachers must cope?

   a. Increases paperwork

   b. Decreases paperwork

   c. Has no effect

25. How does this program affect your paperwork?

   a. Increases paperwork

   b. Decreases paperwork

   c. Has no effect

26. Was the training of teachers comprehensive enough?

   a. Yes; after training teachers could use the program with no problem

   b. Yes; there were a few gaps in training, but they were quickly ironed out.

   c. No; it took some time after training before teachers really understood the program

   d. No; training was totally inadequate

27. Has this experimental program made any changes in students self-confidence?

a. Increased their self-confidence

b. No perceptible change

c. Decreased their self-confidence

28. Did the amount of testing required by the program present any problems?

a. Yes. Please explain ______________________________

____

____

b. No

For models involving the use of machines (i.e. computer terminals video tape, etc.), please answer the following. Otherwise, skip to Qustion 33.

29. Did the machine(s) work dependably?

a. Always (skip to #32)

b. Sometimes

c. Never

30. When it did break down, how quickly was it repaired or replaced?

a. The same day

b. The next day

c. Within a week

d. Longer than a week

31. Did this breakdown disrupt the program?

    a. Severely

    b. Moderately

    c. Minimally

32. When corpsmembers were using the machine, how much teacher supervision was needed?

    a. A great deal

    b. Some

    c. Very little

    d. None

33. Based on what has happened to this center because of this model program, would you be willing to participate in another experiment?

    a. Yes

    b. No

    Why or why not? ______________________________

    ____

    ____

34. Do you think your staff would be willing to participate in another experiment?

    a. Yes

    b. No

    Why or Why not? ______________________________

    ____

    ____

35. If there are any additional comments which you would like to make, we would be glad to have them.

____

____

____

____

____

THANK YOU FOR YOUR TIME

TEACHER PROCESS EVALUATION QUESTIONNAIRE

TEACHER PROCESS EVALUATION QUESTIONNAIRE

DIRECTIONS FOR ADMINISTRATION

SAY: I AM GOING TO READ SOME STATEMENTS TO YOU. FOR EACH OF THEM, PLEASE TELL ME WHETHER YOU:

STRONGLY DISAGREE
DISAGREE
AGREE
STRONGLY AGREE

REMEMBER, YOUR CHOICES ARE: STRONGLY DISAGREE, DISAGREE, AGREE, AND STRONGLY AGREE.

(Hand the teacher the card with the responses written on it which is to be used during the questionnaire administration.)

You will note as you read through the questionnaire that certain questions have an asterisk (*) prececeding them. This notation is for coding of responses. The responses should be coded directly onto the questionnaire form while it is being administered. The response codes are as follows:

Statements with no asterisk		Statements with asterisk	
Response	Code	Response	Code
Strongly Disagree	1	Strongly Disagree	5
Disagree	2	Disagree	4
Neutral	3	Neutral	3
Agree	4	Agree	2
Strongly Agree	5	Strongly Agree	1

The response codes take into account the positive or negative nature of the statement and must be properly coded if accurate analysis is to be possible. It should also be noted that a high total score represents a positive attitude toward Job Corps.

In addition, please note that a code has been left for no opinion for each of the questionnaire statements. This response code is to be used sparingly. The respondent is not aware that a "No Opinion" response is possible and should be encouraged to respond openly and honestly to each statement. The Neutral Code (3) should be used only if the respondent really has no opinion.

TEACHER QUESTIONNAIRE

Name ____________________ Model ____________________

Center ____________________ Date ____________________

THE FOLLOWING STATEMENTS ARE TO BE RESPONDED TO BY ALL EXPERIMENTAL TEACHERS.

1. Trying out new programs is good for the Job Corps educational program. __________
2. Job Corps enrollees are eager to learn. __________

*3. I have very little influence on how a student learns. __________

4. The majority of corpsmembers are really interested in improving themselves. __________
5. Most teachers would like to be part of an experimental program. __________

*6. Teaching in Job Corps makes me feel that I am accomplishing very little. __________

7. Teaching in Job Corps is both interesting and challenging. __________
8. The experimental programs which I know about seem to be worthwhile. __________
9. The new models restore my interest and enthusiasm concerning teaching in Job Corps. __________

*10. I feel that using programmed learning materials gets boring quickly for a teacher. __________

*11. The paper work generated by the new Job Corps programs is too heavy a load for a teacher. __________

12. I could teach more effectively if I had a corpsmember assistant. __________
13. All centers should be using these new programs. __________

ADKINS

14. The Adkins program was relatively easy to implement in the classroom. __________

15. Adkins was an interesting program for a teacher to work with. __________

*16 The training which I received was not adequate to enable me to implement the program well. __________

17. Corpsmembers seem to like the Adkins program better than the regular Job Corps World of Work program. __________

18. Adkins is appropriate for more widespread use in Job Corps. __________

*19. The students were no more motivated in Adkins than they have been in the regular World of Work program. __________

20. The group process is helpful in reinforcing the learning process through peer feedback. __________

*21. The four-stage learning sequence used in Adkins is not very effective. __________

22. Videotaping of students helps them to develop the skills and behaviors which they need to get and keep a job. __________

*23. The student presentations are not effective in terms of building student self-confidence. __________

*24. Major modifications to the program will be necessary before it will fit into Job Corps well. __________

25. I would like to continue working with the Adkins program. __________

*26. The skills needed to successfully operate this program are more akin to those of a counselor than a classroom teacher. __________

27. I feel capable of training other Job Corps teachers in the use of Adkins. __________

API

14. The API program was relatively easy to implement in the classroom. __________

15. API is an interesting program for a teacher to work with. __________

*16. The training which I received was not adequate to enable me to implement the program well. __________

17. Corpsmembers seem to like the API program materials better than the regular Job Corps materials. __________

18. API is appropriate for more widespread use in Job Corps. __________

*19. The students were not more motivated in API than they are in the regular Job Corps program. __________

20. The modules were easy for the corpsmembers to understand. __________

21. Corpsmembers seemed to progress more rapidly through the API program than the regular Job Corps program. __________

22. The lesson content was more motivating for the students than the regular Job Corps program content. __________

23. The diagnostic tests were able to place students accurately within the curriculum. __________

*24. Major modifications to the program will be necessary before it will fit into Job Corps well. __________

25. I would like to continue working with the API program. __________

26. I feel capable of training other Job Torps teachers in the use of the API program. __________

14. The APL program was relatively easy to implement in the classroom. ______

15. APL is an interesting program for a teacher to work with. ______

*16. The training which I received was not adequate to enable me to implement the program well. ______

17. Corpsmembers seemed to like the APL program materials better than the regular Job Corps program materials. ______

18. APL is appropriate for more widespread use in Job Corps. ______

*19. Students were no more motivated in APL than they are in the regular Job Corps program. ______

20. Vocationally-oriented materials have a definite place in the Job Corps curriculum. ______

21. APL teaches students to read more effectively than the regular Job Corps reading program. ______

22. APL teaches math more effectively than the regular Job Corps math program. ______

23. The possibility of getting a high school diploma seems to motivate corpsmembers to learn more rapidly than they do when a diploma is not availdale. ______

24. Major modifications to the program will be necessary before it will fit into Job Corps well. ______

25. I would like to continue working with the APL program. ______

26. I feel capable of training other Job Corps teachers in the use of the APL program. ______

CAI COMPLETE

PLATO/BTI

14. The computer program was relatively easy to implement in the classroom. __________

15. The computer is a very valuable instructional tool for a teacher to work with. __________

*16. The training which I received was not adequate to enable me to implement the program well. __________

17. Corpsmembers appear to be more motivated to learn on the computer than with paper and pencil alone. __________

18. Computers are appropriate for more widespread use in the Job Corps educational programs. __________

19. There were enough terminals for the students to use when they needed CAI time. __________

20. Students seemed to progress more rapidly using the computer than they do in the traditional programs. __________

21. There was not much "down" time for the computers. __________

22. Students liked the fact that others did not know when they made a mistake. __________

23. The training which the students received in computer operations was adequate. __________

24. I would like to continue working with the computer instructional program. __________

25. The CAI system relieves the teacher of most of the onerous paperwork associated with programmed learning. __________

*26. My time is no more efficiently used in a CAI classroom than in a regular paper and pencil classroom. __________

27. I feel capable of training other Job Corps teachers in the use of this computer-assisted instruction program. __________

CAI MATH

CLASSMATE 88

14. The Classmate 88 was relatively easy to use within the regular classroom structure. ________

15. Classmate 88 is interesting for a teacher to use as a classroom aid. ________

*16. The training which I received was not adequate to enable me to implement the program well. ________

17. Corpsmembers seem to like working on the Classmate 88 better than the regular paper and pencil method alone. ________

18. Classmate 88 is appropriate for more widespread use in Job Corps. ________

*19. Students were no more motivated using Classmate 88 than they are in the regular Job Corps math program. ________

20. Students liked the fact that others did not know when they had made a mistake. ________

21. There were enough Classmate 88 calculators for the students to use as often as needed. ________

22. A math aid such as Classmate 88 enables students to progress through the program more rapidly than they do without the supplemental aid. ________

*23. As an instructional tool, Classmate 88 does not do enough to warrant the high cost of the equipment. ________

*24. Major modifications will have to be made before the Classmate 88 will fit into Job Corps well. ________

25. I would like to continue working with the Classmate 88. ________

26. Not having to locate or compose and correct drill exercises contained on the Classmate 88 enabled me to use my teaching time more efficiently and effectively. ________

*27. A better diagnostic testing program is needed to make the Classmate 88 program more effective. ________

28. I feel capable of training other Job Corps teachers in the use of Classmate 88. ________

14. The Cambridge GED program was relatively easy to implement in the classroom. ____________

15. Cambridge is an interesting program for a teacher to work with. ____________

*16. The training which I received was not adequate to enable me to implement the program well. ____________

17. Corpsmembers seemed to like the Cambridge program better than the regular Job Corps GED program. ____________

18. Cambridge is appropriate for more widespread use in Job Corps. ____________

*19. Students were no more motivated using Cambridge than they are in the regular Job Corps GED program. ____________

20. The videotapes were easy for the corpsmembers to understand. ____________

21. The workbooks and other instructional aids provided enough additional help when the corpsmember needed it. ____________

22. The mastery tests seem to help the corpsmember get ready for the State GED exam. ____________

23. Videotapes should be used more extensively in Job Corps. ____________

*24. Major modifications to the program will be necessary before Cambridge will fit into Job Corps well. ____________

25. I would like to continue working with the Cambridge GED program. ____________

26. I think more students will pass the State GED exam using this program than with the regular Job Corps GED program. ____________

27. I feel capable of training other Job Corps teachers in the use of Cambridge GED. ____________

NEW READING PROGRAM

14. The new reading program was relatively easy to implement in the classroom. ______________

15. The new reading program is interesting for a teacher to work with. ______________

*16. The training which I received was not adequate to enable me to implement the program well. ______________

17. Corpsmembers seem to like the new reading program better than the old Job Corps program. ______________

18. The new reading program is appropriate for use throughout Job Corps. ______________

*19. It is taking students so much longer to get through each level of the new reading program that their motivation is low. ______________

20. The placement procedure for the new reading program is efficient. ______________

21. The placement procedure for the new reading program is accurate. ______________

22. Corpsmembers react well to the Language/Study Skills assignments. ______________

23. Corpsmembers feel that the reading selection content is appropriate for them. ______________

*24. Major modifications to the program are necessary before it will fit into Job Corps well. ______________

25. I would like to continue working with the new reading program. ______________

26. I feel capable of training other Job Corps teachers in the use of the new reading program. ______________

STAFFING

14. Integrating the aides into the classroom was relatively easy. ____________

15. It is interesting for a teacher to be able to work with classroom aides. ____________

*16. The training which the aides received was not adequate to enable them to function effectively within the classroom. ____________

17. Corpsmembers seem to like having aides in the classroom. ____________

18. The use of aides is appropriate throughout Job Corps. ____________

*19. Using aides had no more effect on student motivation than not using aides. ____________

20. The aides appear to interact well with the students. ____________

21. The aides enabled me to spend more time directly working with students. ____________

22. Corpsmembers seemed to accept the aides without any problem. ____________

23. There are many more areas in Job Corps where aides could be used effectively. ____________

*24. Major modifications in aide responsibility will be necessary before aides can be adequately utilized within the Job Corps. ____________

25. I would like to continue to work with classroom aides. ____________

26. Corpsmember aides are well worth the money used to employ them because they enable the teacher to function more effectively and efficiently within the classroom. ____________

27. I feel capable of training other Job Corps teachers in the appropriate use of aides within the classroom. ____________

PLEASE RESPOND TO THE FOLLOWING QUESTIONS WITH AS MUCH DETAIL AS POSSIBLE. THESE QUESTIONS ARE TO BE ANSWERED BY ALL THE EXPERIMENTAL TEACHERS.

1. Specifically, what changes in the training which you received would make it easier for new teachers coming into the program?

2. Specifically, what modifications would you feel should be made in order for the program to function more effectively within the Job Corps?

3. After your experience as part of this experiment, would you be willing to participate in another experiment? Why or why not?

4. Insofar as the time and money that was spent in developing these models is concerned, was it well spent? What else do you feel should be done?

5. Are there any additional comments which you would like to make?

Corpsmember Process Evaluation Questionnaires

Core Questions

1. I learn things quickly.
2. I enjoy learning.
3. I learn faster in Job Corps than in school.
4. People could have a better life with more education.
5. Job Corps is helping me learn things to make my future better.
6. Teachers in Job Corps care more than teachers in school.
7. You need math to get a better job.
8. I'm glad I entered Job Corps.
9. You need to read to get a good job.
10. I am treated fairly by Job Corps teachers.

11. I like having lessons on television.
12. The programs were easy to understand.
13. The things I learned will help me get a better job when I leave Job Corps.
14. The group discussions were interesting.
15. I think I learned how to keep my job through this program.
16. I wish more of the Job Corps program was presented like this.
17. Seeing myself on television help me learn how I look and sound to others.
18. After taking this program, I am not afraid of a job interview.
19. Because of this course, I feel I can take better care of my money when I leave Job Corps.
20. My teachers had time to help me when I needed it.
21. I think I am learning faster in this program than my friends in the regular Job Corps program.
22. My teacher liked using the Adkins program.
23. The Adkins materials were interesting.
24. The Adkins materials are not too immature for my age group.

APL Program

11. The things I learned in APL will help me get a job.
12. Going out into the community gave me confidence in getting a good job.
13. I was able to get through the materials at my own speed.
14. I liked the fact that the APL program can help me get a high school diploma.
15. Because the materials were job-related, I wanted to learn more.
16. More people would want to come to Job Corps if they knew they could get a high school diploma.
17. My teachers had enough time to help me when I needed it.
18. The APL materials are not too immature for my age group.
19. My teacher liked using this program with us.
20. I think I am learning faster in APL than my friends in the regular Job Corps program.

11. Working with a computer makes me feel smart.
12. I would like to be able to spend more time on the computer.
13. I like the fact that on the computer, other people don't know when I make a mistake.
14. I would rather work with a computer than a teacher.
15. The computer lets me work at my own speed.
16. The programs on the computer make me want to work harder.
17. The computer should be used more in Job Corps.
18. My teacher really like working with the computer.
19. The materials on the computer were not too immature for my age group.
20. I think I am learning faster on the computer than my friends who are not using it.
21. My teacher had enough time to help me when I needed it.
22. The computer was not off so much of the time that I couldn't use it when I needed to.

11. I would like to be able to spend more time working with the Classsmate 88.
12. The directions for working with the Classmate 88 are clear.
13. Working with equipment like the Classmate 88 makes me feel smart.
14. The problems on the Classmate 88 were not boring.
15. I like the fact that when I work on the Classmate 88, other people don't know when I make a mistake.
16. Machines like the Classmate 88 should be used more in Job Corps.
17. Classmate 88 lets me work at my own speed.
18. The Classmate 88 was not broken so much that I couldn't use it when I needed to.
19. The problems on Classmate 88 are not too immature for my age group.
20. My teacher had enough time to help me when I needed it.
21. I think I am learning faster on the Classmate 88 than my friends who are not using it.
22. My teacher seemed to like working with the Classmate 88.

Cambridge GED Program

11. I like having lessons on television.

12. The programs were easy to understand.

13. The other materials like books and study guides gave me enough help when I needed it.

14. The television lessons were interesting to me.

15. I could not have gone through the program faster without the television lessons.

16. Programs on television should be used more in Job Corps.

17. I think I am learning faster using Cambridge than my friends who are not using it.

18. My teacher liked using the Cambridge materials.

19. The Cambridge materials are not too immature for my age group.

20. My teacher had enough time to help me when I needed it.

21. The tests that were used in the books helped me to get ready for the GED test.

11. The language and study skills portion of the program is helpful.
12. It is not taking me longer to get through the program than I thought it would.
13. The materials I had to read covered enough different things to keep me interested.
14. I like to read for fun more now than I did when I came to Job Corps.
15. The things I read in my old school were not as good as the things that I am reading in Job Corps.
16. My teacher had enough time to help me when I needed it.
17. The reading program materials are not too immature for my age group.
18. By the time I finish this program, I will really be ready for the reading part of the GED.
19. My teacher really like working with the reading program.
20. I think I am learning faster than my friends who are in other Job Corps reading programs.

Staffing

11. Having aides helped make the classes more interesting.
12. I went through the program faster because the aides were there to help me.
13. I got enough attention from my teacher even though there was an aide.
14. Aides should be used more in Job Corps.
15. My teacher really like having the aide.
16. The aide respected me as a person.
17. There were enough aides to help everyone when they needed it.
18. I think I am learning faster than my friends who are in classes without aides.
19. One day I would like to be an aide in Job Corps.

CHAPTER 6. PRELIMINARY FINDINGS

The EIE is an evolving system of experiments. The first model program began in May 1979. Since then, as Phase I of EIE, nine programs have been implemented at nine Job Corps Centers, with some data available on these experiences.

Between the testing of the first participant in April 1979 and March 1980, 2,268 experimental program enrollees and 1,875 control program enrollees were assigned to different models in the EIE study. Of these, 394 participated for 90 hours of program content and were tested before and after; 1,841 enrollees exited from the programs before the completion of 90 hours. Of this latter group, 349 were tested on early exit. The average number of program hours for the groups exiting early was 35.6. There were 906 active enrollees with less than 90 hours of treatment as of the beginning of March 1979. For the period covered by this report, 2,405 enrollees have terminated from the EIE study for a variety of reasons, i.e. either leaving Job Corps or progressing far enough where the experimental programs were no longer applicable. The data presented in Table 15 is largely self explanatory. However, a few clarifications have to be made. Insofar as the Adkins program is concerned, the shortened version (7 units rather than 10), does not take 90 program hours to complete. Therefore, pre and posttest data largely show in the early terminee category. The API program was suspended and begun again due to numerous site problems; therefore, it has not been in operation long enough for data in the later cohorts to be available.

Table 15
Summary of Experience
April 1979-March 1980

Characteristic	Adkins	Adkins Control	API	API Control	APL	APL Control	CAI Phoenix	CAI Plato	CAI Math	CAI Math Cont.	Cambridge GED	Cambridge GED. Cont.	NRP	NRP Control	Staffing	Total
Total Entrants	47	65	105	89	52	48	120	237	67	60	97	87	1201	1524	352	4,151
Total Terminees	40	55	21	22	13	7	40	102	60	60	48	42	764	947	184	2,405
Total Active	7	10	84	67	39	41	80	135	7	0	49	45	437	577	168	1,746
Exited Before 90 Hours	39	51	4	19	4	1	39	54	33	42	23	13	581	826	112	1,841
Tested on Early Exit	20	22	0	0	1	0	6	16	14	16	SAT Not Applicable		99	109	46	349
Average Hours Before Termination (90 hrs or less)	46.9	31.9	20.6	22.8	43.0	44.0	31.7	53.0	33.7	35.9		52.8	38.0	31.8	49.2	38.23
Tested at 90 Hours	7	5	6	7	1	1	8	19	6	4	56	11	110	131	22	394
Not Completed 90 Hours as of 2/80	1	9	82	66	7	11	55	42	5	8	12	9	203	346	50	906
Completed 90-135 Hours Not Posttested	1	0	0	3	8	16	8	2	2	0	7	3	18	76	5	149
Tested Between 135 and 165 Hours	Cohort 1 Completed		Program Not Operational Long Enough		6	1	Program Suspended	3	Program Terminated N/A		4	1	64	35	19	133
Still in Program, 150 Hours or More					34	35		53			4	17	114	80	53	390
Terminated at 150 Hours or More					0	0		6			19	3	5	1	3	37
Still in Program More than 165 Hours					12	9		51			3	16	54	47	34	226
Posttested at More than 165 Hours					6	4		15			17	15	36	27	13	133
In Program at 1 Year					NOT YET APPLICABLE						17					
Tested at 1 Year																

The CAI program at Phoenix has been in suspension since December 1979 because of hardware difficulties. Therefore, later cohort information is not currently available. In addition, the CAI Math model has been terminated because of numerous site and program related difficulties. Therefore, there is virtually no data available for more than 90 hours because the program was not in operation long enough. In addition, average hours in program are not currently available for any group other than the less than 90 hour terminees. This information will be available as the study progresses.

The data discussed in this report represents a preliminary investigation on those Corpsmembers who have been enrolled in EIE Phase I from its inception in May 1979 up through February 1980. Included, therefore, is only the first cohort of enrollees in a limited number of educational models and for a limited duration of individual participation.

The purpose of this report is to examine preliminary Phase I data to ascertain preliminary trends in the data in order to develop an analytical format that can be utilized as data accumulates subsequently. In addition, preliminary data have been examined in order to ascertain relevant predictors for selected outcome variables. It should be noted that the EIE study has not progressed far enough to provide sufficient sample sizes for analysis at many of the test sites.

Table 16 presents the demographic characteristics of experimental and control groups in percentages, by center, and by program within center. An inspection of the data indicates heterogeneity for most of the variables across the centers, indicating that the different demographic variables of Job Corps centers do vary within the restraints set by the eligibility requirements.

As for within center demographic variable differences, the following are statistically significant:

1) At Breckinridge the number of males and females differ in the treatment programs.

2) At Guthrie the number of males and females differ in the two programs.

3) The Clearfield PLATO program has significantly more whites in it in comparison to other programs.

4) At Tongue Point, the Cambridge GED program has significantly more whites in it.

5) At Breckinridge, the ORP program has more Corpsmembers from towns over 250,000 than the other programs do.

Table 16

Sample Characteristics
Selected Demographic Variables

	Breckinridge (N=631)						Clearfield (N=467)					El Paso (N=100)			Gary (N=796)		
Characteristic	Total	NRP (N)	ORP (N)	Staff (N)	Camb GED (N)	JC GED (N)	Total	PLATO (N)	NRP (N)	ORP (N)	Staff (N)	Total	APL (N)	JC (N)	Total	NRP (N)	ORP (N)
		180	195	172	45	39		219	79	89	80		52	48		444	352
Sex:																	
Male	79.2	81.1	77.4	81.4	71.1	79.5	83.0	81.7	83.5	85.4	82.5	61.0	59.6	62.5	77.5	78.4	76.4
Female	20.8	18.9	22.6	18.4	28.9	20.5	17.0	18.3	16.5	14.6	17.5	39.0	40.4	37.5	22.5	21.6	23.6
Ethnic Group:																	
Amer. Ind.	.2	-	-	.6	-	-	4.3	4.1	2.5	5.6	3.8		-	-	.1	.2	-
Asian	-	-	-	-	-	-	.6	.5	-	2.2	-	1.0	1.9	-	-	-	-
Black	97.6	98.9	97.9	98.3	95.6	89.7	63.8	58.4	74.7	65.2	66.3	-	-	-	81.9	80.4	83.8
Hisp.	.5	1.1	2.1	1.2	-	2.6	10.0	7.8	11.4	15.7	8.8	92.0	90.4	93.8	6.7	7.7	5.4
White	1.7	-	-	-	4.4	7.7	21.3	28.8	11.4	11.2	21.3	6.0	7.7	4.2	8.4	7.7	9.4
Other	-	-	-	-	-	-	-	-	-	-	-	1.0	-	2.1	2.9	4.1	1.4
Size of Town:																	
Under 2,500	10.0	10.0	8.7	11.6	13.3	5.1	6.4	6.8	5.1	7.9	5.0	2.0	-	4.2	6.9	5.9	8.2
2,500-50,000	43.4	46.1	43.1	44.2	35.6	38.5	21.7	21.5	19.0	23.6	22.5	1.0	1.9	-	24.7	24.1	25.6
50,000-250,000	24.7	26.7	21.5	27.3	24.4	20.5	18.3	20.5	17.7	18.0	13.8	-	-	-	15.5	16.9	13.6
Over 250,000	21.9	17.2	26.7	16.9	26.7	35.9	53.6	51.2	58.2	50.6	58.8	97.0	98.1	95.8	52.9	53.2	52.6
English Comp.:																	
Good	88.4	87.8	86.2	91.3	88.9	89.7	86.6	86.8	89.9	82.0	87.5	69.0	76.9	60.4	89.1	87.8	90.6
Fair/Poor	11.6	12.2	13.8	8.7	11.1	10.3	13.2	12.8	10.1	18.0	12.5	28.0	23.1	33.3	10.6	11.5	9.4
None	-	-	-	-	-	-	.2	.4 mis	-	-	-	3.0	-	6.3	.4	.7	-
Residential Status:																	
Res.	100	100	100	100	100	100	100	100	100	100	100	49.0	40.4	58.3	100	100	100
Non res.	-	-	-	-	-	-	-	-	-	-	-	51.0	59.6	41.7	-	-	-
Last Grade Compl.:																	
$\bar{X}$	9.7	9.6	9.8	9.8	9.5	9.8	9.8	9.9	10.0	9.8	9.8	9.2	9.4	9.1	9.6	9.5	9.7
sd	1.3	1.6	1.2	1.4	1.0	1.0	1.0	1.0	1.0	1.3	1.0	1.1	1.0	1.2	1.3	1.3	1.3
N	631	180	195	172	45	39	470	210	79	89	80	100	52	48	796	444	352
Age:																	
$\bar{X}$	18.4	18.3	18.5	18.4	18.0	18.4	18.3	18.0	18.4	18.5	18.4	17.4	17.5	17.3	18.0	18.0	18.1
sd	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.7	1.3	1.7	1.5	1.4	1.5	1.3	1.5	1.5	1.5
N	630	180	195	172	44	39	465	216	79	88	79	96	50	46	796	444	352
Lang. Spoken:																	
Amer. Ind.	-	-	-	-	-	-	1.9	1.8	2.5	3.4	-	-	-	-	-	-	-
Other	.4	1.2	-	-	-	-	.6	1.0	-	2.2	1.3	1.0	-	2.1	17.3	15.8	19.3
Spanish	.3	-	.5	-	-	2.6	9.1	5.9	11.4	15.7	8.8	92.0	90.4	93.8	5.2	6.3	3.7
Eng.	99.4	98.8	99.5	100	100	97.4	88.3	92.2	85.1	78.7	90.9	7.0	9.6	4.2	77.5	77.9	77.0

Table 16 (cont.)

Sample Characteristics
Selected Demographic Variables

Characteristic	Guthrie (N=176)			Pittsburgh (N=111)			Phoenix (N=473)				Tongue Point (N=167)					Woodstock (N=153)				
	Total	API (N)	JC (N)	Total	Adkins (N)	JC WOW (N)	Total	CAI (N)	NRP (N)	ORP (N)	Total	NRP (N)	ORP (N)	Camb GED (N)	JC GED (N)	Total	Adkins (N)	JC WOW (N)	CAI Math (N)	JC Math (N)
		92	84		45	66		126	182	165		68	72	15	12		16	20	57	60
Sex:																				
Male	56.6	58.7	48.8	61.3	53.3	66.7	56.0	59.5	55.5	53.9	46.1	50	45.8	46.7	25	90.8	93.8	85.0	96.5	86.7
Female	43.4	41.3	51.2	38.7	46.7	33.3	44.0	40.5	44.5	46.1	53.9	50	54.2	53.3	75	9.2	6.3	15.0	3.5	13.3
Ethnic Group:																				
Amer. Ind.	1.8	4.3	-	-	-	-	9.3	10.3	8.8	9.1	3.6	1.5	4.2	13.3	-	-	-	-	-	-
Asian	.4	-	-	-	-	-	3.0	0	3.3	4.8	4.8	4.4	6.9	-	-	-	-	-	-	-
Black	62.8	64.1	65.5	39.6	42.4	37.9	16.1	16.7	18.7	12.7	31.7	39.7	34.7	-	8.3	98.0	100	100	96.5	98.3
Hisp.	3.5	2.2	1.2	-	-	-	29.4	31.7	24.7	32.7	13.2	16.2	11.1	13.3	8.3	.7	-	-	1.8	1.7
White	29.6	28.3	29.8	60.4	57.8	62.1	41.6	40.5	43.4	40.6	40.7	30.9	38.9	66.7	75.0	.7	-	-	-	-
Other	1.8	1.1	3.6	-	-	-	.6	.8	-	-	6.0	7.4	4.2	6.7	8.3	.7	-	-	1.8	-
Size of Town:																				
Under 2,500	14.2	14.1	14.3	21.6	20.0	22.7	4.2	6.3	1.6	5.5	13.8	11.8	15.3	20.0	8.3	4.6	-	20.0	1.8	3.3
2,500-50,000	41.2	37.0	40.5	19.8	15.6	22.7	8.5	9.5	7.1	9.1	28.1	23.5	30.6	26.7	41.7	15.0	18.8	10.0	17.5	13.3
50,000-250,000	17.7	21.7	14.3	50.5	60.0	43.3	7.8	6.3	7.1	9.7	14.4	14.7	8.3	26.7	33.3	8.5	-	10.0	5.3	13.3
Over 250,000	27.0	27.2	31.0	8.1	4.4	10.6	79.5	77.8	84.1	75.8	43.7	50.0	45.8	26.7	16.7	71.9	81.3	60.0	75.4	70.0
English Comp.:																				
Good	96.9	96.7	97.6	83.8	88.9	80.3	94.9	98.4	94.5	92.7	93.4	94.1	90.3	100	100	75.8	56.3	75.0	82.5	75.0
Fair/Poor	3.1	3.3	2.4	16.2	11.1	19.7	2.5	1.6	3.3	2.4	6.6	5.9	9.7	-	-	24.2	43.8	25.0	17.5	25.0
None	-	-	-	-	-	-	2.5	-	2.2	4.2	-	-	-	-	-	-	-	-	-	-
Residential Status:																				
Res.	100	100	100	66.7	64.4	68.2	50.7	49.2	48.9	53.9	100	100	100	100	100	95.4	93.8	95.0	98.2	93.3
Non res.	-	-	-	33.3	35.6	31.8	49.3	50.8	51.1	46.1	-	-	-	-	-	4.6	6.3	5.0	1.8	6.7
Last Grade Compl.:																				
x	9.7	9.5	9.8	10.0	10.2	10.0	9.9	10.0	10.1	9.7	10.0	10.0	10.0	10.1	10.0	9.4	9.6	9.7	9.3	9.4
sd	1.9	1.6	1.4	1.3	1.4	1.2	1.4	1.3	1.4	.12	1.1	1.1	1.2	.8	.6	1.3	1.5	1.3	1.3	1.3
N	.74	91	83	110	45	65	460	123	177	160	167	68	72	15	12	153	16	20	57	60
Age:																				
x	17.6	17.5	17.7	17.9	18.1	17.7	18.1	18.1	17.9	18.2	18.0	18.1	18.0	17.9	17.6	17.8	17.1	17.9	17.7	18.1
sd	1.4	1.3	1.6	1.6	1.8	1.5	1.5	1.7	1.44	1.6	1.4	1.5	1.36	1.4	1.1	1.5	.8	1.7	1.5	1.6
N	74	92	82	110	44	66	449	123	167	159	167	68	72	15	12	151	16	19	57	59
Lang. Spoken:																				
Amer. Ind.	-	-	-	-	-	-	4.4	5.6	2.7	5.5	-	-	-	-	-	-	-	-	-	-
Other	2.7	1.1	2.4	-	-	-	3.4	.8	3.8	4.8	7.8	4.4	9.7	13.3	8.3	2.6	-	-	3.5	3.3
Spanish	4.4	2.2	4.8	-	-	-	23.0	25.4	18.1	26.7	4.2	7.4	2.8	-	-	.7	-	-	1.8	-
Eng.	92.9	96.7	92.9	100	100	100	69.1	68.3	75.3	63.0	88.0	88.2	87.5	86.7	91.7	96.7	100	100	94.7	96.7

Table 17

SAMPLE CHARACTERISTICS
TEST DATA

Characteristics	Breckinridge (N=631)						Clearfield (N=467)					El Paso (N=100)			Gary (N=796)		
	Total	NRP	ORP	STAFF	Camb GED	JC GED	Total	PLATO	NRP	ORP	STAFF	Total	APL	JC	Total	NRP	ORP
RJS1																	
$\bar{X}$	10.1	8.7	10.2	8.9	17.1	16.0	15.7		13.5	12.4	12.4	15.4	15.9	14.9	10.8	10.3	11.4
sd	4.9	4.0	4.5	4.5	3.9	4.0	5.4		4.5	4.6	4.8	4.4	4.2	4.6	5.9	5.7	6.0
N	604	175	194	168	35	32	357		57	63	46	100	52	48	795	444	357
MJS1																	
$\bar{X}$	N/A	N/A	N/A	N/A	N/A	N/A	46.8		39.4	38.6	42.7	46.0	45.6	46.5	41.8	41.9	41.7
sd							18.2		14.3	18.8	15.9	17.4	18.3	16.7	17.0	17.5	16.3
N							396		61	70	65	95	50	45	795	444	351
SAT_Pre Read																	
$\bar{X}$	3.5	3.3	3.8	3.4			5.8	6.3	5.4	5.0	5.0	6.4	6.6	6.3	4.9	4.7	5.2
sd	1.3	1.2	1.3	1.3			2.4	2.2	1.7	2.1	2.3	2.3	2.0	2.6	2.7	2.7	2.6
N	549	180	194	172			324	44	61	71	56	99	52	47	607	360	247
SAT_90 hr. Read																	
$\bar{X}$	4.6	4.5	5.0	4.3			6.6	6.9	6.5	5.1	5.7	6.9	7.0	6.7	6.1	5.8	6.8
sd	2.0	1.9	2.0	2.1			2.5	2.3	2.2	1.9	2.3	2.3	2.3	.7	3.0	2.8	3.3
N	352	115	125	110			122	25	27	19	15	33	21	12	231	168	63
SAT_150 hr. Read																	
$\bar{X}$	4.8	4.6	5.2	4.7			I/D	I/D	I/D	I/D	I/D	I/D	I/D	I/D	6.0	6.1	I/D
sd	2.0	2.2	2.1	1.9			I/D	I/D	I/D	I/D	I/D	I/D	I/D	I/D	2.4	2.5	I/D
N	85	26	24	35			I/D	I/D	I/D	I/D	I/D	I/D	I/D	I/D	34	30	
SAT_Pre Math																	
$\bar{X}$							5.8	6.8				6.3	6.2	6.4			
sd							2.3	1.1				2.2	2.1	2.4			
N							54	10				95	52	43			
SAT_90 Hr. Math		Math not Applicable	Math not Applicable	Math not Applicable	SAT not Applicable	SAT not Applicable			Math not Applicable	Math not Applicable	Math not Applicable					Math not Applicable	Math not Applicable
$\bar{X}$								I/D				6.4	5.8	7.8			
sd												2.3	2.2	2.1			
N												29	20	9			
SAT_150 hr. Math																	
$\bar{X}$								I/D									
sd																	
N												I/D	I/D	I/D			
Mos. out of school																	
P_{50}	10.3	12.0	11.3	10.0	6.3	5.5	8.3	9.3	7.9	11.5	8.3	3.9	6.5	3.3	9.4	9.5	9.2
N	609	175	189	164	43	38	411	200	68	74	68	94	48	46	661	360	301

Table 17 (cont.)

SAMPLE CHARACTERISTICS
TEST DATA

Characteristics	Guthrie (N=176)			Pittsburgh (N=11]			Phoenix (N=473)				Tongue Point (N=167)					Woodstock (N= 153)				
	Total	API	JC	Total	Adkins	JC WOW	Total	CAI	NRP	ORP	Total	NRP	ORP	Camb GED	JC GED	Total	Adkins	JC WOW	CAI Math	JC Math
RJS1																				
$\bar{X}$	15.3	14.4	14.8	17.5	16.9	17.9	16.4	17.5	16.3	15.8	13.8	12.4	12.5	21.5	21.1	12.7	13.2	17.2	11.7	12.0
sd	3.6	3.3	3.6	3.9	3.7	4.0	5.4	4.6	5.3	6.0	4.9	2.9	4.4	2.3	2.9	4.9	2.9	4.4	5.1	4.5
N	167	89	78	111	45	66	449	120	174	155	166	68	72	14	12	151	16	19	57	59
MJS1																				
$\bar{X}$	46.7	43.8	45.9	55.4	54.0	56.4	40.5	41.1	40.1	40.4	N/A	N/A	N/A	73.9	71.6	43.2	41.9	55.2	39.6	43.2
sd	16.0	15.4	14.2	17.0	16.1	17.5	18.6	19.0	17.9	19.0	N/A	N/A	N/A	9.7	14.6	15.5	10.0	15.6	16.4	14.0
N	166	88	78	110	44	66	441	120	170	151	N/A	N/A	N/A	14	12	150	16	19	55	60
SAT Pre Read																				
$\bar{X}$	5.9	5.4	6.3	7.1	7.0	7.2	6.1	6.6	6.0	5.7	6.1	6.0	6.2	SAT Tests not Applicable	SAT Tests not Applicable	6.1	4.7	7.7	N/A	N/A
sd	1.7	1.5	1.7	26	2.6	2.6	2.6	2.3	2.7	2.7	2.1	1.6	2.5			2.9	2.1	2.9	N/A	N/A
N	106	53	53	95	40	55	263	82	98	83	[illegible]	61	62			44	15	20		
SAT 90 hr. Read																				
$\bar{X}$				7.8	7.2	8.6	7.5	8.8	7.2	6.0	6.9	7.1	6.6			5.1	5.2	5.1	N/A	N/A
sd	I/D	I/D	I/D	2.8	2.7	2.9	2.6	1.8	2.5	3.0	2.2	1.6	2.5			2.5	2.1	2.7	N/A	N/A
N				28	16	12	79	26	35	18	70	33	36			26	10	16	N/A	N/A
SAT 150 hr. Read																				
$\bar{X}$	I/D	I/D	I/D	N/A	N/A	N/A	I/D	I/D	I/D	I/D	prog. term	prog. term	prog term			prog. term	prog. term	prog. term	N/A	N/A
sd	I/D	I/D	I/D	N/A	N/A	N/A	I/D	I/D	I/D	I/D									N/A	N/A
N																				
SAT Pre Math																				
$\bar{X}$	6.0	5.4	6.3	6.6	6.8	6.5	4.8	5.0	4.8	4.6						5.5	5.3	6.9	5.1	5.4
sd	1.9	1.8	1.8	2.4	2.2	2.6	2.2	2.2	2.2	2.1						2.1	1.7	2.1	2.2	2.0
N	103	48	55	87	43	44	268	81	98	88						148	16	20	55	57
SAT 90 hr. Math																				
$\bar{X}$				7.0	7.0	7.1	5.1	5.7	4.8	5.0	N/A	N/A	N/A			5.5	6.2	5.7	5.2	5.7
sd	I/D	I/D	I/D	2.6	2.6	2.7	2.1	1.7	2.0	2.6						2.1	1.7	2.0	2.4	1.8
N				29	16	13	74	23	32	19						100	11	18	38	33
SAT 150 hr. Math																				
$\bar{X}$	I/D	I/D	I/D	N/A	N/A	N/A										prog. term	prog. term	prog. term	prog. term	prog. term
sd	I/D	I/D	I/D	N/A	N/A	N/A	I/D	I/D	I/D											
N							I/D	I/D	I/D											
Mos. out of school P_{50}	7.9	10.5	7.6	6.5	5.7	8.3	11.7	11.65	10.3	12.1	10.6	11.6	10.5	9.0	8.5	6.8	5.5	4.2	7.5	9.8
N	173	84	[illegible]	100	37	63	453	121	175	157	153	62	64	15	12	139	14	20	48	57

6) At Pittsburgh, the Adkins program has more Corpsmembers from towns over 250,000 than the other program does.

7) At Tongue Point, the ORP has more Corpsmembers from towns of 2,500-50,000 than the other programs do.

8) At El Paso, the Corpsmembers in the Job Corps program have a higher level of English competence than the ones in the APL program.

9) At El Paso, the Job Corps program has more residential Corpsmembers than the APL program does.

The wide variance of population characteristics between sites suggests emphasis on an analytical approach which focuses upon seeking predictor variables for academic achievement by center rather than across centers.

A basic question for experimental design is whether experimental and control groups are statistically equivalent. Because randomization of subjects into groups was planned but assignment could not be mandated, the researchers attempted to determine whether Corpsmember samples for an experimental program and its traditional Job Corps program counterpart within a site were statistically equivalent. A series of 2 sample t tests were run to ascertain this. A two tailed test was employed so that significant differences that were either higher or lower, could be detected (Table 18).

There is considerable variation in the significant relations among the treatment groups at the different centers. For example, at one center, in a particular program, females tend to have more schooling than males and in the "control" group no such relationship exsts; or males are more highly educated than females; or in one program within a center, American Indians have the lowest level of English Competence and in another program, they do not.

The data indicate that the ethnic distribution by center and by program vary considerably and that different centers and different programs within each center draw their population from different size towns. Size of the town is related to the Corpsmembers' English competency which may correlate to initial SAT level and to potential academic gain in reading and mathematics.

All of the above point to the conclusion that the randomization procedures have not produced a "pure" random distribution of the demographic and population variables that may be related to educational gain. Without statistical controls for demographic and population variance, some of the gains attributed to programs could be accounted for by demographic and population variances in the programs.

TABLE 18

Statistical Equivalence of Samples

Program	Comparison	Site(s)	Test	t	df	Significance*
Adkins	Adkins vs Job Corps World of Work	Pittsburgh	RJS1	-1.78	74	NS
			MJS1	.13	74	NS
			SAT Pre Reading	.15	70	NS
			SAT Pre Math	.56	71	NS
		Woodstock	RJS1	-3.15	33	S
			MJS1	-2.95	33	S
			SAT Pre Reading	-3.41	33	S
			SAT Pre Math	-2.37	34	S
API	API vs Job Corps Reading and Math	Guthrie	RJS1	-1.51	62	NS
			MJS1	.06	62	NS
			SAT Pre Reading	-1.64	36	NS
			SAT Pre Math	- .58	37	NS
APL	APL vs Job Corps Reading and Math	El Paso	RJS1	.80	95	NS
			MJS1	- .63	90	NS
			SAT Pre Reading	.51	93	NS
			SAT Pre Math	- .94	84	NS
CAI-PLATO	PLATO Reading vs NRP	Clearfield**	RJS1	3.08	107	S
			SAT Pre Reading	1.86	89	NS
	PLATO Reading vs Job Corps Reading		RJS1	4.42	113	S
			SAT Pre Reading	2.43	110	S
CAI/CMI	CAI Reading vs NRP	Phoenix**	RJS1	2.72	261	S
			SAT Pre Reading	2.08	148	S
	CAI Reading vs Job Corps Reading		RJS1	2.85	246	S
			SAT Pre Reading	2.48	136	S
Cambridge GED	Cambridge vs. Job Corps GED	Breckinridge	RJS1	1.39	52	NS
		Tonque Point	RJS1	.41	24	NS
			MJS1	.49	24	NS

Program	Comparison	Site(s)	Test	t	df	Significance*
CAI Math	CAI Math vs. Job Corps Math	Woodstock	RJS1	- .39	114	NS
			MJS1	-1.28	113	NS
			SAT Pre Math	- .79	110	NS
NRP	NRP vs. Job Corps Reading	Breckinridge	RJS1	-3.27	369	S
			SAT Pre Reading	-4.34	373	S
		Clearfield	RJS1	1.29	118	NS
			SAT Pre Reading	.80	123	NS
		Gary	RJS1	-2.87	793	S
			SAT Pre Reading	-3.14	640	S
		Phoenix	RJS1	.39	279	NS
			SAT Pre Reading	.49	149	NS
		Tongue Point	RJS1	- .07	121	NS
			SAT Pre Reading	- .02	121	NS
Staffing	NRP with aides vs NRP	Breckinridge	RJS1	- .56	343	NS
			JCRP1	-1.03	352	NS
			SAT Pre Reading	- .92	147	NS
		Clearfield	RJS1	1.21	101	NS
			JCRP1	.98	85	NS
			SAT Pre Reading	.77	106	NS

* Significance is at least = .05 on a two-tailed, nondirectional test.

** Significance expected because non-computer reading programs contain enrollees below the 3.5 grade level and computer reading programs do not.

As can be seen from Table 18, entering samples are statistically equivalent at most sites in terms of entry test data. Difference other than those noted on the table are as expected and do not exceed the number expected by chance on this many tests. It should be noted, however, that demographic data show the samples are in fact not equivalent. Entering demographic data may be impacting on results, despite the initial equality.

The X^2 analysis by program within site (see Tables 19-26) provides a picture of the significant relationships among the demographic and population characteristics in Cohort 1.

The data clearly indicate that some significant relationships occur across all of the sites and programs and some are either site or progam specific. A brief conclusion regarding each finding is presented within the tables.

Cross-center variations and relationships tend to be logical or are a result of redundancy. For example, there is significant relationship between Highest Grade Completed and Age, or that Hispanics speak Spanish. However, certain logical relationships do not always appear, such as those with "good" English competency have completed more schooling. In at least one center, there is no significant relationship between English competency and the number of years of schooling completed.

Table 19

Significant X^2 By Program Within Site

Breckinridge Job Corps Center

Program	X^2	Discussion
New Reading Program (NRP)	Highest Grade Completed and Age	The older enrollees have completed more schooling.
Job Corps Reading Program (ORP)	English Competence and Highest Grade Completed	Those with "good" English competency have completed more schooling.
	Highest Grade Completed and Age	Self explanatory.
Staffing	Highest Grade Completed and Age	Self explanatory.

Table 20

Significant X^2 By Program Within Site

Clearfield Job Corps Center

Program	X^2	Discussion
Computer Assisted Instruction (PLATO)	English Competence and Age	Older enrollees have lower English competence.
	English Competence and Ethnic Group	The American Indians have the lowest English competence.
	English Competence and Highest Grade Completed	The more education, the higher the English competence.
	Ethnic Group and Language in Home	Self explanatory.
	Ethnic Group and Size of Town	Blacks come from bigger towns.
	Highest Grade Completed and Sex	Males are more highly educated.
	Highest Grade Completed and Size of Town	Those with more education come from larger towns.
New Reading Program (NRP)	English Competence and Ethnic Group	American Indians have the lowest level of English competence, than Hispanics, Blacks, and Whites in that order.
	Size of Town and Ethnic Group	Blacks come from the biggest towns.
	Size of Town and Sex	Females are evenly distributed across all categories; males come mainly from towns over 250,000.

Table 21

Significant X^2 By Program Within Site

El Paso Job Corps Center

Program	X^2	Discussion
Adult Performance Level (APL)	Age and Ethnic Group	The younger portion of the sample is Hispanic.
	Age and Language in Home	The English speaking sample is older; Spanish speaking sample is younger.
	Ethnic Group and Language in Home	Self explanatory.
Job Corps Program	Ethnic Group and Language in Home	Self explanatory.

Table 22

Significant X^2 By Program Within Site

Gary Job Corps Center

Program	X^2	Discussion
New Reading Program (NRP)	Age and Highest Grade Completed	Self explanatory.
	English Competence and Language in Home	English speaking enrollees have the highest competence, then "other," then Spanish speaking.
	Ethnic Group and Language in Home	Self explanatory.
	Ethnic Group and Size of Town	The White sample is evenly distributed across categories, Hispanics are evenly distributed above the 2,500 category, and Blacks come from towns over 250,000 in the ratio of 2:1.
	Language in Home and Highest Grade Completed	Those in the "other" language category are the best educated.
	Language in Home and Sex	Spanish is spoken more in homes of females.
	Language in Home and Size of Town	Spanish speakers are evenly distributed while English speakers and those in the "other" category come from big towns.
Job Corps Reading Program (ORP)	Age and Highest Grade Completed	Self explanatory.
	English Competence and Ethnic Group	Hispanics have the lowest English competence, then Blacks, then Whites.
	Ethnic Group and Language in Home	Self explanatory.
	Ethnic Group and Size of Town	Whites are evenly distributed across all categories while Blacks and Hispanics come from the larger towns.
	Highest Grade Completed and Language in Home	English speaking enrollees have completed more schooling.
	Language in Home and Size of Town	Spanish speaking enrollees are evenly distributed across all categories.

Table 93

Significant X^2 By Program Within Site

Pittsburgh Job Corps Center

Program	X^2	Discussion
Adkins World of Work	Highest Grade Completed and Age	Self explanatory.
	Highest Grade Completed and Sex	Female enrollees have completed more schooling.
	Highest Grade Completed and Size of Town	Corpsmembers from the larger towns have completed more schooling.
	Residential Status and Sex	More females live off center.
	Residential Status and Size of Town	Enrollees from the larger towns tend to live off center.
	Sex and Age	Female enrollees are older.
Job Corps World of Work	Ethnic Group and Size of Town	Blacks seem to be coming from the larger towns, Whites from the smaller.
	Highest Grade Completed and Age	Self explanatory.
	Highest Grade Completed and Size of Town	Those with more schooling come from towns of 2,500 or less.
	Residential Status and English Competence	Those living on center have lower English competency.
	Residential Status and Sex	More females live off center.
	Residential Status and Size of Town	Those from the larger towns tend to live off center.
	Sex and Size of Town	Female enrollees tend to come from towns in the 50,000-250,000 category.
	Size of Town and English Competence	Those from the smaller towns have a lower level of English competence.
	Size of Town and Ethnic Group	The White sample does not come from the larger towns; it comes from the small and medium sized towns.

Table 24

Significant X^2 By Program Within Site

Phoenix Job Corps Center

Program	X^2	Discussion
Computer-Assisted Instruction (CAI)	Ethnic Group and Size of Town	Whites are from larger towns.
	Ethnic Group and Residential Status	There are more Whites living off center.
	Ethnic Group and Language in Home	Self explanatory.
	Highest Grade Completed and Age	Self explanatory.
	Size of Town and Language in Home	Spanish speakers come from the larger towns.
New Reading Program (NRP)	Age and Highest Grade Completed	Self explanatory.
	Age and Residential Status	Youngest people live off center, oldest enrollees live on center.
	Ethnic Group and Size of Town	All ethnic groups come from the larger towns and cities, predominantly 250,000 and above.
	Ethnic Group and Residential Status	Blacks and Hispanics tend more to live off the center.
	Highest Grade Completed and Size of Town	Corpsmembers coming from the larger towns have completed more schooling.
	Language in Home and Highest Grade Completed	English speaking corpsmembers have completed more grades in school than Spanish speaking corpsmembers.
Job Corps Reading Program (ORP)	Ethnic Group and Residential Status	Blacks and Hispanics tend to live off center.
	Ethnic Group and Size of Town	Whites and Hispanics come from all size towns; Blacks come predominantly from the larger towns.
	Ethnic Group and Age	Asians tend to represent the oldest population on center; Whites tend to be the youngest of the population.
	Ethnic Group and Highest Grade Completed	Whites tend to have completed more education in comparison to other groups.
	Language in Home and English Competence	Asians have either no or poor English competency.
	Language in Home and Residential Status	Spanish speaking corpsmembers tend to live off center.
	Highest Grade Completed and English Competence	If corpsmembers complete 7 grades, no relationship exists between highest grade completed and English Competency.

Table 25

Significant X^2 By Program Within Site

Tongue Point Job Corps Center

Program	X^2	Discussion
New Reading Program (NRP)	Ethnic Group and Size of Town	Black corpsmembers come from the larger towns.
	Language in Home and Ethnic Group	Self explanatory.
Job Corps Reading Program (ORP)	Age and Ethnic Group	Asian enrollees are older.
	Age and English Competency	The older enrollees have lower English competency.
	English Competence and Ethnic Group	Asians have lower English competency; the other ethnic groups are about the same.
	English Competence and Sex	Females have higher English competency.
	Language in Home and English Competence	"Other" category is lowest, then Spanish speaking with English speaking the highest.
	Language in Home and Ethnic Group	Self explanatory.
	Sex and Ethnic Group	Except for the Blacks, all other ethnic groups have more females in the sample.
	Size of Town and Ethnic Group	Black enrollees come from the larger towns.
Job Corps GED	Highest Grade Completed and Size of Town	Enrollees from the larger towns have completed more schooling.
	Language in Home and Ethnic Group	Self explanatory.

Table 26

Significant X^2 By Program Within Site

Woodstock Job Corps Center

Program	X^2	Discussion
CAI Math	Age and Highest Grade Completed	Self explanatory.
Job Corps Math	English Competency and Size of Town	The bigger the town, the better the English competency.

The Educational Program Intensity

The intensity of these various education models is measured in terms of hours of treatment. Some models and some centers may schedule more hours of treatment in any given period. Corpsmembers drop out for a variety of reasons which may have nothing to do with the educational program. All else being equal, models which are less intensive, will have higher dropout rates simply because they require more days of Job Corps participation to reach testing points. One criterion for the effectiveness of the models is their effect on attendance rates. All else being equal, better attendance will produce greater completion rates because youths attain these after a shorter period in Job Corps.

For corpsmembers enrolled in most of the EIE programs (either experimental or control), the completion of 90 in-subject hours represents a time frame of eighteen weeks. Coupled with an orientation program that encompasses one or two weeks, the 90 hours represents approximately five months of Job Corps enrollment. The time frame is the same whether the center operates using a split day education/vocation program or one week of educational instruction alternated with one week of vocational training.

There are three notable exception to the foregoing. These are the Adkins, APL, and PLATO programs. Cohort I of the Adkins program operated on the basis of two class periods per day which compressed the course into nine weeks. This, combined with the orientation period, represents a Job Corps enrollment of two and a half months. However, Cohort 2 will operate one class period per day extending the time in program to be comparable with others.

The APL program is a complete program requiring four consecutive class periods per day. However, since this covers reading, mathematics and World of Work content, the 90 hour in-subject content takes approximately 14 weeks for an enrollee to complete. This, combined with orientation time, means approximately four months of Job Corps enrollment, or about one month less than it would take to complete the same amount of content in the regular Job Corps program.

The PLATO program also operates differently in that corpsmember scheduling is in two hour blocks of time. If total program is considered, it will take nine weeks to complete the 90 hours. Combined with the two week orientation, approximately three months of Job Corps enrollment is involved. However, insofar as the one period per day of computer time is concerned, the requisite time to complete 90 hours is eighteen weeks and the overall Job Corps enrollment time is five months making this comparable in time with other programs.

Charts 6 and 7 and Table 27 show the time needed to attain 90 hours, model absence rates, and class attendance by site.

CHART 6

JOB CORPS ENROLLMENT TIME

Center	Program	Approximate Job Corps Enrollment Time To Reach 30 Hrs. In Subject	Approximate Job Corps Enrollment Time To Reach 90 Hrs. In Subject
Breckinridge	Cambridge GED	4 wks.	10 wks.
	Cambridge GED	4 wks.	10 wks.
	NRP	7 wks.	19 wks.
	NRP and Staffing Control	7 wks.	19 wks.
	Staffing	7 wks.	19 wks.
Clearfield*	NRP	8 wks.	20 wks.
	NRP 1 Staffing Control	8 wks.	20 wks.
	**PLATO	4 wks./8 wks.	10 wks./20 wks.
	Staffing	8 wks.	20 wks.
EL Paso	APL	6 wks.	16 wks.
	APL Control	6 wks.	16 wks.
Gary	NRP	7 wks.	19 wks.
	NRP Control	7 wks.	19 wks.
Guthrie	API	7 wks.	19 wks.
	API Control	7 wks.	19 wks.
Pittsburgh	Adkins	4 wks.	10 wks.
	Adkins Control	7 wks.	19 wks.
Phoenix	CAI	7 wks.	19 wks.
	CAI Control	7 wks.	19 wks.
	NRP	7 wks.	19 wks.
	NRP Control	7 wks.	19 wks.
Tongue Point	Cambridge GED	4 wks.	10 wks.
	Cambridge GED Control	4 wks.	10 wks.
	NRP	7 wks.	19 wks.
	NRP Control	7 wks.	19 wks.

CHART 6 (con't)

JOB CORPS ENROLLMENT TIME

Center	Program	Approximate Job Corps Enrollment Time To Reach 30 Hrs. In Subject	Approximate Job Corps Enrollment Time to Reach 90 Hrs. In Subject
Woodstock	Adkins	4 wks.	10 wks.
	Adkins Control	7 wks.	19 wks.
	CAI Math	7 wks.	19 wks.
	CAI Math Control	7 wks.	19 wks.

** If sole time on computer is counted, figures are 8 and 20 weeks respectively. If combined program is considered, the figures are 4 and 10 respectively.

* Noted centers' time includes a two week rather than a one week orientation period.

Chart 7

Percentage of Class Absence
by Model

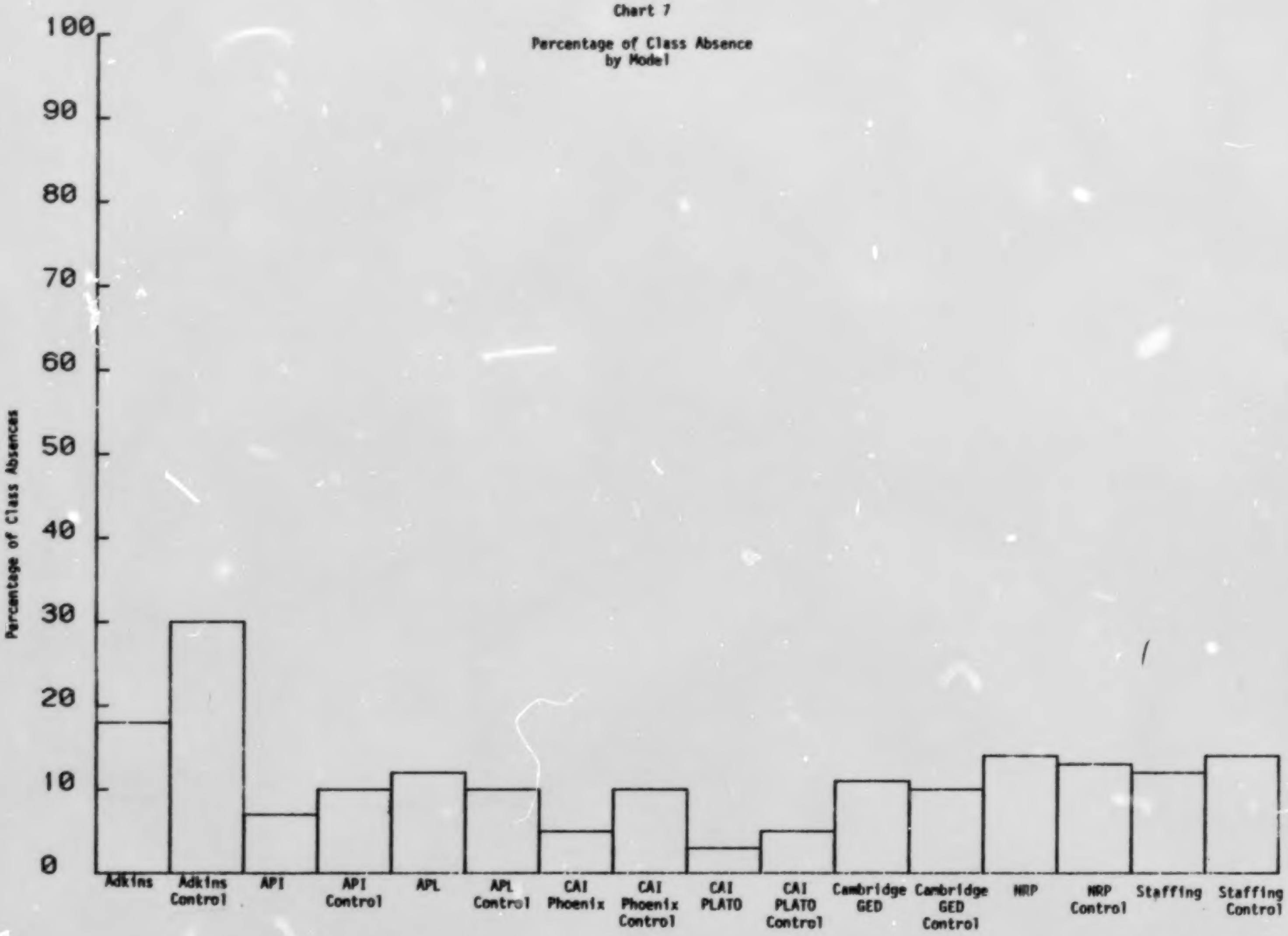


Table 27

Percentage of Class Attendance
By Program within Site

Characteristic	Breckinridge					Clearfield				El Paso		Gary		Guthrie	
	Camb. GED	JC GED	NRP	ORP	Staff	PLATO	Stafr	NRP	ORP	APL	JC	NRP	ORP	API	JC
Total	89.0	90.1	85.9	86.1	82.9	96.3	95.5	96.0	96.4	88.9	90.1	84.3	88.2	93.5	91.1
Sex:															
Male	89.9	91.1	86.7	85.1	82.1	96.8	95.8	95.8	96.6	87.8	90.5	85.1	87.9	92.5	93.4
Female	84.9	86.9	81.8	89.8	86.2	35.3	94.4	96.7	95.4	90.1	89.3	81.1	89.2	96.3	88.1
Ethnic Group:															
American Indian:	-	-	-	-	88.1	95.3	97.4	97.9	95.6	-	-	51.3	-	48.3	-
Asian:	-	-	-	-	-	64.6	100.0	93.0	96.8	88.3	-	-	-	-	49.4
Black:	88.9	90.2	86.0	86.1	82.8	95.3	94.8	96.0	95.8	-	-	84.4	88.3	94.9	84.7
Hispanic:	-	70.3	80.5	-	-	97.6	97.0	96.0	97.4	89.6	90.7	90.1	88.2	94.3	48.0
White:	97.8	91.0	78.5	85.6	92.8	97.6	96.8	96.1	97.8	77.4	65.1	67.5	84.8	91.4	92.6
Other:	-	-	-	-	-	33.3	-	87.0	97.2	-	95.6	87.2	90.2	50.0	96.3

Characteristic	Maryland				Phoenix			Pittsburgh		Tongue Point			
	CAI Math	JC Math	Adkins	JC WOW	NRP	ORP	CAI	Adkins	WOW JC	NRP	ORP	Camb. GED	JC GED
Total	32.7	41.9	32.4	52.0	90.5	89.9	95.0	79.7	72.7	85.9	84.6	98.9	98.8
Sex:													
Male	31.7	41.4	32.9	53.2	90.5	89.4	95.1	77.5	72.4	88.7	87.4	98.6	100.0
Female	63.7	45.2	25.0	40.0	90.5	90.7	94.9	82.3	73.9	82.9	81.6	99.3	98.2
Ethnic Group:													
American Indian:	-	-	-	-	94.8	90.9	95.2	-	-	-	61.7	100.0	-
Asian	-	-	-	-	98.7	99.6	-	-	-	59.3	95.2	-	-
Black	33.1	42.6	32.4	52.0	88.9	87.2	95.4	76.7	76.0	86.8	90.3	100.0	100.0
Hispanic	25.0	-	-	-	87.7	89.4	93.8	-	-	79.7	69.6	97.8	100.0
White	-	29.4	-	-	89.6	88.5	95.7	81.4	70.7	86.4	79.1	98.7	98.3
Other	15.0	-		-	100.0	-	97.9	-	-	97.1	94.6	100.0	100.0

Preliminary data indicates that the slightly varying amounts of time required for attainment of the 90 hour standard has not impacted significantly on attendance or on terminations. Differential impacts may, however, be ascertained as the study continues and the sample size increases.

The attendance data presents some interesting preliminary findings. The only substantially significant total program difference is between the Adkins program and its control at Pittsburgh. Other significant differences are found in various characteristics and attendance. For example, at Gary, attendance of whites in the ORP is significantly higher than in the NRP, but the reverse is true for blacks. At Phoenix, attendance in the CAI program is better than for the non-computer programs, although the same is not true for Clearfield. Attendance in GED programs at both Breckinridge and Tongue Point is better than for lower level programs supporting the contentions of previous Job Corps research. Attendance will continue to be tracked as the study progresses.

Termination Data

Questions as to whether certain types of enrollees are more likely to drop out than are other types must be asked. Because entry characteristics differ from site to site, the question of early termination has to be asked on a center specific basis. As of the present time, the sample size of most sites is not enough to enable statistically valid conclusions. As the study progresses, the 30 hour terminee will be characterized on the basis of demographic and entry test data and will be compared to both the 90 hour and the 150 hour completer.

At the present time, certain terminee data are available relating to Job Corps Termination Category. This data may be found in Table 28. To date, the sample size is not large enough to enable analysis other than descriptive information as presented.

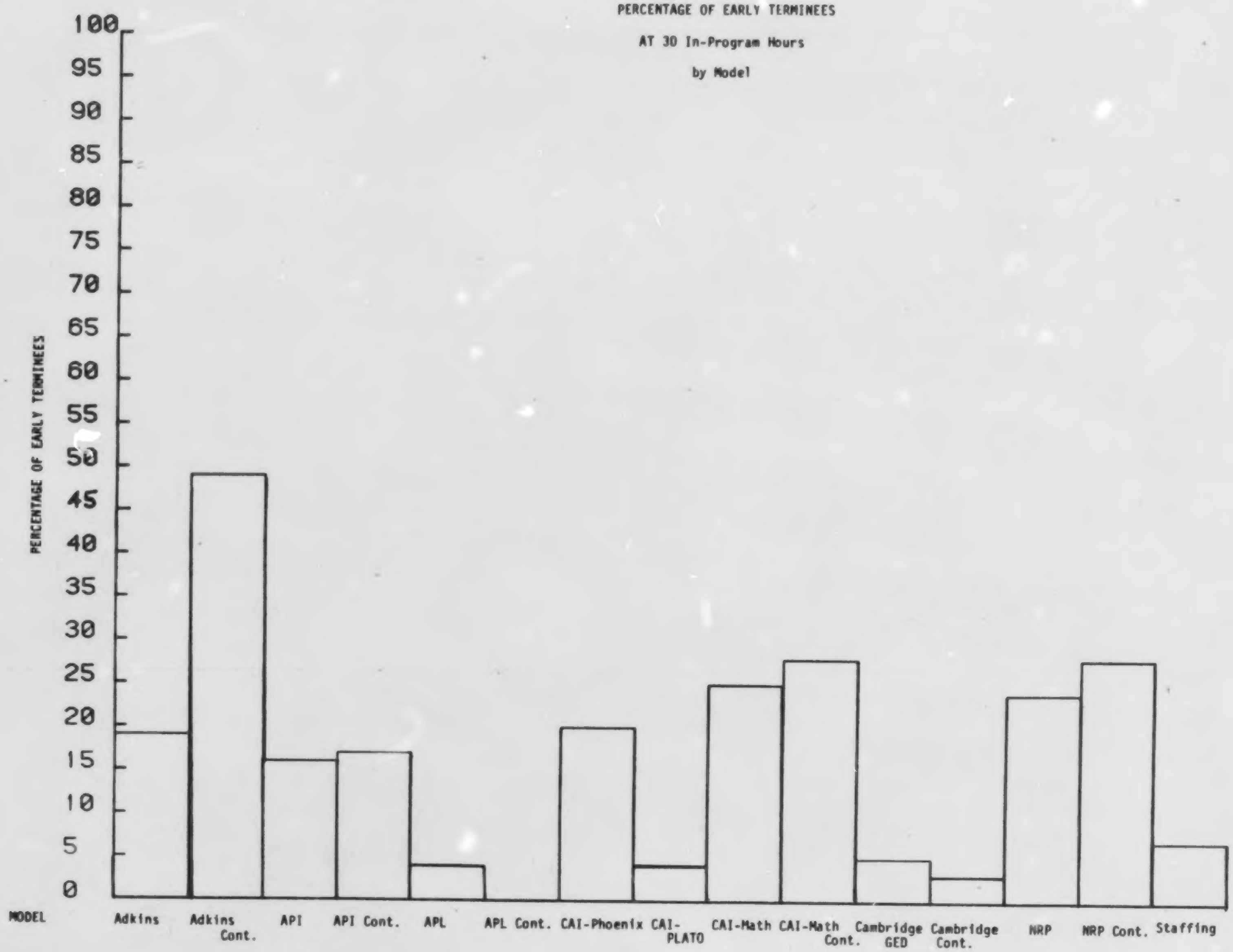
An additional breakdown of the terminations may be found by ethnic group. Table 29 presents the comparison of the proportion of the EIE sample remaining active by ethnic group. The data presented represents that available as of February 14, 1980.

Chart 8

PERCENTAGE OF EARLY TERMINEES

AT 30 In-Program Hours

by Model



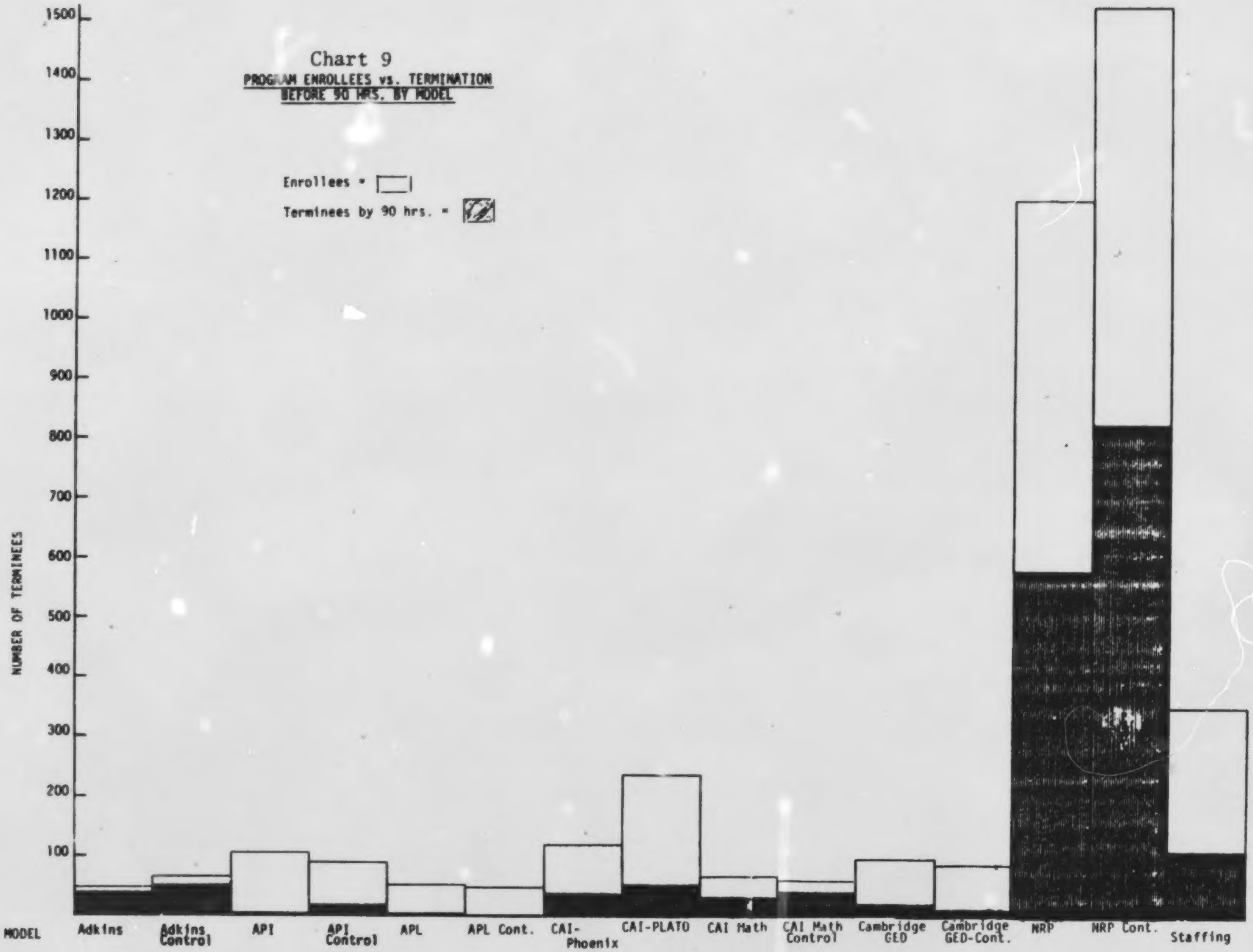


Chart 9

PROGRAM ENROLLEES vs. TERMINATION BEFORE 90 HRS. BY MODEL

Table 28

Terminations by Job Corps Category

by Program within Site

CENTER:	Breckinridge					Clearfield					El Paso		Gary	
MODEL:	NRP	JC READ	Camb. GED	JC GED	Staffing	NRP	JC READ	Staffing	PLATO	PLATO Control	APL	JC Program	NRP	JC READ
ADMIN.	5.3	9.5	10.0	8.0	6.6	0	1.5	6.8	0	0	0	0	7.7	5.9
AWOL	42.4	38.2	30.0	28.0	40.5	10.0	12.5	2.2	16.6	0	0	0	18.8	21.6
COMP.	8.8	7.8	35.0	28.0	8.4	18.0	7.8	4.5	5.5	0	14.2	25.0		
DISCIP.	5.3	2.6	0	8.0	4.7	2.0	8.6	22.7	7.7	0	0	0	15.7	15.4
MAX-BEN.	2.6	6.0	0	0	1.8	0	.7	0	1.1	0	0	0	0	0
MEDICAL DEATH	2.6	1.7	0	0	9	0	1.5	0	0	0	0	0	1.5	1.7
RESIG.	30.9	33.9	25.0	24.0	35.8	70.0	64.5	63.6	65.5	66.6	85.7	75.0	48.1	52.3
TRANS.	.8	.0	.0	4.0	.9	0	2.3	.0	2.2	33.3	0	0	.3	.0
TRANSFER TO ACT	.8	.0	.0	.0	.0	0	0	.0	1.1	.0	0	0	.0	.0

CENTER:	Guthrie		Maryland				Pittsburgh		Phoenix			Tongue Point			
MODEL:	API	JC Program	Classmate 88	JC Math	Adkins	JC WOW	Adkins	JC WOW	NRP	JC READ	CAI READ/Math	NRP	JC READ	Camb. GED	JC GED
ADMIN.	0	0	6.2	0	0	0	5.0	3.5	1.6	3.7	0	0	0	0	0
AWOL	47.0	58.3	68.7	54.5	40.0	0	10.0	14.2	43.3	49.0	48.0	25.0	43.4	0	0
COMP.	0	8.3	0	0	0	0	10.0	0	5.0	11.3	24.0	0	0	0	0
DISCIP.	0	0	6.2	0	60.0	0	0	10.7	5.0	1.8	4.0	0	4.3	0	0
MAX-BEN.	5.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MEDICAL DEATH	0	8.3	0	4.5	0	0	0	0	0	0	0	0	0	0	0
RESIG.	47.0	25.0	18.7	36.3	0	100	75.0	67.8	45.0	33.9	24.0	75.0	52.1	100	100
TRANS.	0	0	0	4.5	0	0	0	3.5	0	0	0	0	0	0	0
TRANSFER TO ACT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 29

Percentage of Enrollees Remaining Active
by Ethnic Group

N = 3955

Ethnic Group	Total Sample	Experimental Sample	Control Sample
American Indian	66.7	68.3	63.6
Asian	61.8	53.8	66.7
Black	45.6	49.7	40.8
Hispanic	58.8	57.3	60.6
White	51.3	57.7	43.3
Other	39.1	38.2	40.0

These figures can be compared to an overall figure of approximately 49 percent of enrollees remaining active in the total EIE study. It is evident from the above figures that the experimental programs are making an impact on the retention of both Black and White enrollees, the two largest ethnic groups in the sample. Sample sizes from the other ethnic groups are still too small on which to base definitive conclusions.

An additional question relating to characteristics of those completing segments of the program as compared to characteristics of those terminating early must be asked. Data comparing the 90 hour completer and the early terminee in reading programs may be found in Table 30 and similar data for math program enrollees is contained in Table 31.

Table 30

90 Hour Completers Vs. Program Terminees in Reading Programs on Selected Characteristics

Characteristic	Total Sample		Experimental Sample		Control Sample	
	90 Hr. Compl.	Terminees	90 Hr. Compl.	Terminees	90 Hr. Compl.	Terminees
	(N=714)	(N=758)	(N=511)	(N=408)	(N=263)	(N=350)
Sex:						
Male	74.4	75.3	77.3	76.7	68.8	74.0
Female	25.6	24.5	22.7	23.3	31.2	26.0
Ethnic Group:						
Amer. Ind.	.5	1.1	.8	1.0	-	1.1
Asian	1.0	.3	.4	.2	2.3	.3
Black	78.8	74.0	79.3	73.3	77.9	74.9
Hispanic	8.9	7.9	9.2	8.3	8.4	7.4
White	8.5	15.6	7.6	15.7	10.3	15.4
Other	2.2	1.2	2.7	1.5	1.1	-
Residential Status:						
Res	97.8	94.5	97.7	93.9	98.1	95.1
Non Res	2.2	5.5	2.3	6.1	1.9	4.9
English Competency:						
Good	86.8	89.2	88.6	88.2	83.3	90.0
Fair/Poor	13.0	10.7	11.4	11.3	16.3	10.0
None	.1	.1	-	.5	.4	-
Age:						
N	772	755	510	406	262	349
Mean	18.3	18.0	18.3	17.9	18.4	18.1
Std. Dev.	1.58	1.52	1.57	1.51	1.61	1.52
Last Grade Completed:						
N	774	758	511	408	263	350
Mean	9.8	9.7	9.7	9.7	9.9	9.7
Std Dev.	1.36	1.30	1.34	1.34	1.39	1.25
RJSI:						
N	747	745	491	404	256	341
Mean	11.33	11.69	11.04	11.28	11.89	12.17
Std. Dev.	5.42	5.58	5.34	5.53	5.53	5.61
Reading Pretest:						
N	774	758	511	408	263	350
Mean	4.83	5.13	4.65	4.81	5.19	5.52
Std. Dev.	2.50	2.52	2.33	2.55	2.76	2.53

Table 31

90 Hour Completers Vs. Program Terminees in Math Programs on Selected Characteristics

Characteristic	Total Sample		Experimental Sample		Control Sample	
	90 Hr. Compl. (N=156)	Terminees (N=193)	90 Hr. Compl. (N=981)	Terminees (N=94)	90 Hr. Compl. (N=25)	Terminees (N=99)
Sex:						
Male	80.1	74.1	81.5	78.7	78.7	69.7
Female	19.9	25.9	18.5	21.3	21.3	30.3
Ethnic Group:						
Amer. Ind.	-	1.6	-	1.1	-	2.0
Asian	.6	1.0	1.2	1.1	-	1.0
Black	70.5	48.7	65.4	43.6	76.0	53.5
Hispanic	16.7	24.0	23.5	19.1	9.3	11.1
White	11.5	33.1	8.6	34.0	14.7	32.3
Other	.6	.5	1.2	1.1	-	-
Residential Status:						
Res	86.5	77.2	82.7	74.5	90.7	79.8
Non Res	13.5	22.8	17.3	25.5	9.3	20.2
English Compentency:						
Good	78.2	85.5	82.7	83.0	73.3	87.9
Fair/Poor	21.2	14.0	17.3	17.0	25.3	11.1
None	.6	.5	-	-	1.3	1.0
Age:						
N	154	191	80	92	74	99
Mean	17.8	17.8	17.7	17.6	17.8	18.0
Std. Dev.	1.59	1.80	1.62	1.89	1.57	1.70
Last Grade Completed:						
N	156	193	81	94	75	99
Mean	9.4	10.0	9.3	10.0	9.4	10.0
Std. Dev.	1.39	1.37	1.30	1.35	1.49	1.37
RJSI:						
N	150	181	80	91	70	90
Mean	13.68	15.28	13.06	15.[illegible]4	14.39	15.31
Std. Dev.	5.14	5.22	4.60	5.2[illegible]	5.66	5.18
MJSI:						
N	153	185	79	90	74	95
Mean	44.92	43.90	40.62	43.32	49.50	44.44
Std. Dev.	16.88	19.86	16.04	20.66	16.64	19.17
Math Pretest:						
N	156	193	81	94	75	99
Mean	5.75	5.68	5.42	5.75	6.12	5.62
Std. Dev.	2.10	2.43	2.05	2.49	2.11	2.38

Math program data show more in the way of differences than did reading program data; however, the sample size is much smaller. More females, proportionately, are terminating from math programs than are completing 90 hours; the same is not true for males. The nonresidential enrollees are terminating at a significantly higher rate than are residential enrollees; English competency for total sample and Job Corps math program terminees is significantly higher than for 90 hour completers. RJSI scores for terminees are higher than for 90 hour completers across all categories although MJSI and SAT Mathematics Computations results are not consistent across all programs.

Educational Gains

Educational gains data reported are based on grade level conversion of raw scores on the Stanford Achievement Tests. When broken down by program within site, gains data are based on very small sample sizes. This is due, at least in part, to the problems related to posttesting terminating Corpsmembers. The "expected gains" data are based on converting 90 hours to 4 1/2 months in Job Corps and 150 hours to 7 1/2 months in Job Corps based on one class hour per day. Expected gains are then comparable to the SAT grade level conversion of 1.0 academic years per 10 month school year. Table 32 contains by program/within site available gains data.

TABLE 32

SAT Reading and Math Educational Gains Data by Program

Model	Reading Test Data				Math Test Data			
	90 Hour		150 Hour		90 Hour		150 Hour	
	Gain	N	Gain	N	Gain	N	Gain	N
APL	1.6	10	1.8	6	1.3	13	Insufficient Data	
APL Control	1.6	8	Insufficient Data		Insufficient Data			
CAI - Phoenix	2.4	24	Insufficient Data		1.3	19		
CAI - Phoenix Control	1.8	16	Insufficient Data		.7	13		
CAI - PLATO	1.8	16	Insufficient Data		Insufficient Data			
CAI - PLATO Control	1.4	14	Insufficient Data		Insufficient Data			
NRP	1.6	309	2.2	48	Not applicable			
NRP Control	1.5	219	1.7	22	Not applicable			
Staffing	1.3	88	1.5	31	Not applicable			
Staffing Control	1.5	106	1.7	22	Not applicable			
Over-Experimental	1.6	447	1.9	85	1.3	32		
Overall Control	1.5	363	1.7	48	.7	13		

* Model not cited have insufficient data at this time.

The average gains in both reading and math as measured by the SAT demonstrate that enrollees in all Job Corps programs (experimental and control) are achieving above the expected rates for students in a school setting. However, also interesting to note is the fact that preliminary 150 hour test data show a slippage in amount of gain over time. Data illustrate that the proportion of gain in 150 hours is not significantly different from that in 90 hours. Students still learn, but at a slower rate, as time in Job Corps increases. This is consistent with previous findings related to education in Job Corps (see, for example, Levitan, 1975).

Although the data from a number of programs is still missing due to the fact that enough of the Corpsmembers have not as yet completed 90 hours of training, the preliminary results are encouraging as to the effectiveness of the Job Corps programs.

In an earlier study of educational gains in Job Corps reported by Levitan (1975), the average gains per man month of training in reading comprehension ranged from a low of 1.3 to 2.1 months according to different measures. Converted into gains in academic achievement in (10 months) school years, the range would be from 1.56 years to 2.64 school years of achievement for a youth in Job Corp. On the basis of 90 hours of training, present data show that the absolute gain in reading comprehension achievement range from mean score low of 1.3 years in the Breckinridge Staffing Program to a high of 2.43 in the CAI program at Phoenix.

In regards to improvement in reading achievement, it can be seen that, on the basis of only 90 hours of instruction, it is already comparable to the improvement produced by the Job Corps programs in the period from 1968 through 1972 for those completing the entire training program. We can, therefore, at this time, predict that reading comprehension gains by the time the Corpsmembers who complete the programs will exceed the 1968 through 1972 norms.

Levitan (1975) also reports monthly gains at Job Corps Centers from 1968 to 1974, for Arithmetic Computation. Converted into gains in academic achievement in years, the range is from a low of 1.56 years to a high of 3.0 years. At this time there are sufficient data to compare the current programs with the effectiveness of the Job Corps Programs from 1968-1972 in helping to improve the Corpsmembers' arithmetic computation. As soon as enough Corpsmembers have completed 90 hours and 150 hours of training, a meaningful comparison will be made. In addition, the effectiveness of the various programs and the effectiveness of each of the programs within the climate of each center will be compared.

In order to determine whether there was a significant difference in 90 hour gain between selected experimental programs and their control programs, a series of Analysis of Variance (ANOVA) tests were run. The ANOVA procedure is used to determine whether or not there is a significant difference between group means for two or more groups. Table 33 presents this data. The degrees of freedom are based on the number of groups (first figure) and the N in each group (second figure).

Table 33

Significance Test on Reading Gains
At Selected Sites

Comparison	Site	F	Degrees of Freedom	Significance Level
CAI vs. Job Corps	Phoenix	1.501	1 and 38	NS
NRP vs. Job Corps	Breckinridge	.413	1 and 198	NS
	Clearfield	1.551	1 and 26	NS
	Gary	.284	1 and 197	NS
	Phoenix	.28	1 and 46	NS
	Tongue Point	.080	1 and 51	NS
PLATO vs. Job Corps	Clearfield	.651	1 and 28	NS
Staffing vs. Job Corps	Breckinridge	1.756	1 and 192	NS

As can be seen from Table 33, comparative gains data between programs has not reached statistical significance at the 5 percent level. There are several possible reasons for this. In the first place, teachers are not as familiar with the experimental programs as they are with the traditional Job Corps educational programs and this could be impacting on Corpsmember gains. Second cohort data will contain valuable information in explaining this possibility. Secondly, increased sample sizes will enable the determination of whether differences are really significant. The small size used in these tests would necessitate a very big difference in order to attain significance.

Step-wise multiple regression programs were run on approximately 3,000 EIE enrollees. The first step-wise regression analysis employed overall reading gain at 90 hours as the outcome variable. The predictor variables were ethnic group, sex, pre SAT math score, pre SAT reading score, model, number of hours in model, age, highest grade completed and English competency. Only 4 percent of the variance in reading gains could be accounted for by these predictor variables. This 4 percent of variance does not, however, represent a true estimate of the predicting power of the independent variables. This is due to the multicollinearity of the data and possible statistical violations of some of the assumptions of regression analysis, particularly that all groups have the same variance.

A step-wise multiple regression was also performed employing the most significant results which occurred on the basis of the multiple regression analysis of average math score gains at 150 hours. The predictor variables accounted for 86 percent of the variance. The variance change accounted for by pre SAT reading was 31 percent. This indicates the existence of a strong relationship between the cognitive and motivational abilities that result in reading ability as measured by the SAT. These appear to be very much the same as the abilities accounting for average gain in math per instructional hour in an extended educational program.

Other step-wise multiple regressions were run in order to ascertain other differential predicting power of the independent variables employed. The analysis employing reading gain at 150 hours as the dependent variable showed that the predictor variables accounted for 24 percent of the variance. The strongest predictor in this instance was pre SAT math which accounted for 17 percent of the variance.

The regression analysis performed employing gain in math at 90 hours duplicated the results of that for 90 hour gain in reading. Only 10 percent of the variance could be accounted for by the predictor variables. Again, this result appears to be an artifact of the statistical nature of the data.

GED Data

There are three experimental programs in EIE that are designed for use with students at the GED level. The American Preparatory Institute (API) program being tested at Guthrie has a GED component as does the PLATO Computer-Assisted Instruction program at Clearfield. In addition, the Cambridge GED program was tested at Tongue Point and is being tested at Breckinridge. There are limited data on the GED programs both because they have not been in operation long enough and because sample sizes are small. Available results on the GED Practice Test (used as pretest measure) and on State GED Exams are contained in Table 34. Linear regression coefficients and Pearson correlations using Practice Test results as a predictor of State GED exam scores for each of the five GED subtests are contained in Charts 10 to 14. The obtained correlations for the small sample data presented here are quite high on four of the five subtests. As the study progresses, an attempt will be made to ascertain requisite time necessary in each content area for certain pretest scores before successful passing of the State GED exam.

It should be noted that available data indicate a passing percentage on the State GED exam of almost 97 percent. However, there is currently no way of knowing whether test results are first time results or retakes.

TABLE 34

GED TEST RESULTS
BY PROGRAM WITHIN CENTER

Program	Site(s)	Test	Practice Test			State Exam		
			Mean	Std. Dev.	N	Mean	Std. Dev.	N
API	Guthrie				Data not yet available			
Cambridge	Breckinridge	English	43.4	4.8	33	45.1	4.4	29
		Math	45.8	4.4	26	46.3	5.6	29
		Reading	47.5	4.8	27	49.1	5.6	30
		Science	45.9	5.9	23	48.7	4.4	34
		Soc. Studies	42.3	6.8	35	46.7	5.3	34
	Tongue Point	English	46.8	6.3	13	Insufficient Data		
		Math	48.6	5.8	13			
		Reading	49.6	7.1	14			
		Science	51.8	5.5	13			
		Soc. Studies	48.7	4.6	14			
Job Corps	Guthrie				Data not yet available			
	Breckinridge	English	45.0	6.4	24	43.8	5.6	28
		Math	43.4	2.1	7	45.6	5.5	22
		Reading	47.7	4.2	19	47.9	5.0	23
		Science	48.3	4.4	16	48.7	4.4	25
		Soc. Studies	46.8	4.5	13	46.8	3.5	21
	Tongue Point	English	45.6	4.9	11	Insufficient Data		
		Math	51.9	6.7	11			
		Reading	54.2	4.6	11			
		Science	50.5	3.7	11			
		Soc. Studies	50.2	4.7	10			
PLATO	Clearfield	English	42.4	3.1	30	47.3	5.9	18
		Math	41.9	4.4	30	48.0	5.5	18
		Reading	45.7	5.4	30	49.3	4.7	18
		Science	46.3	4.2	30	49.6	5.5	18
		Soc. Studies	44.9	5.2	30	49.8	5.4	18

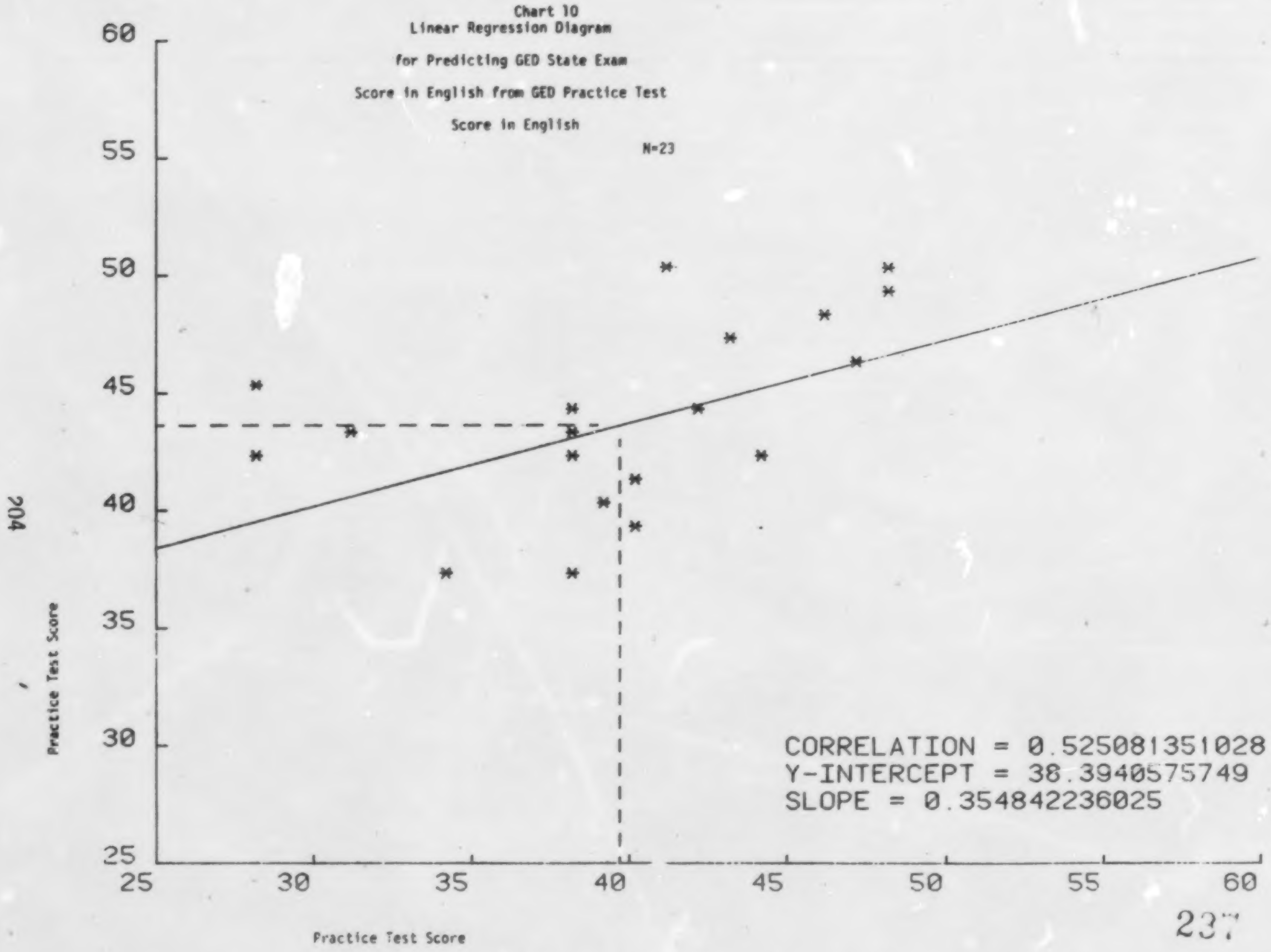


Chart 10
Linear Regression Diagram
for Predicting GED State Exam
Score in English from GED Practice Test
Score in English
N=23

CORRELATION = 0.525081351028
Y-INTERCEPT = 38.3940575749
SLOPE = 0.354842236025

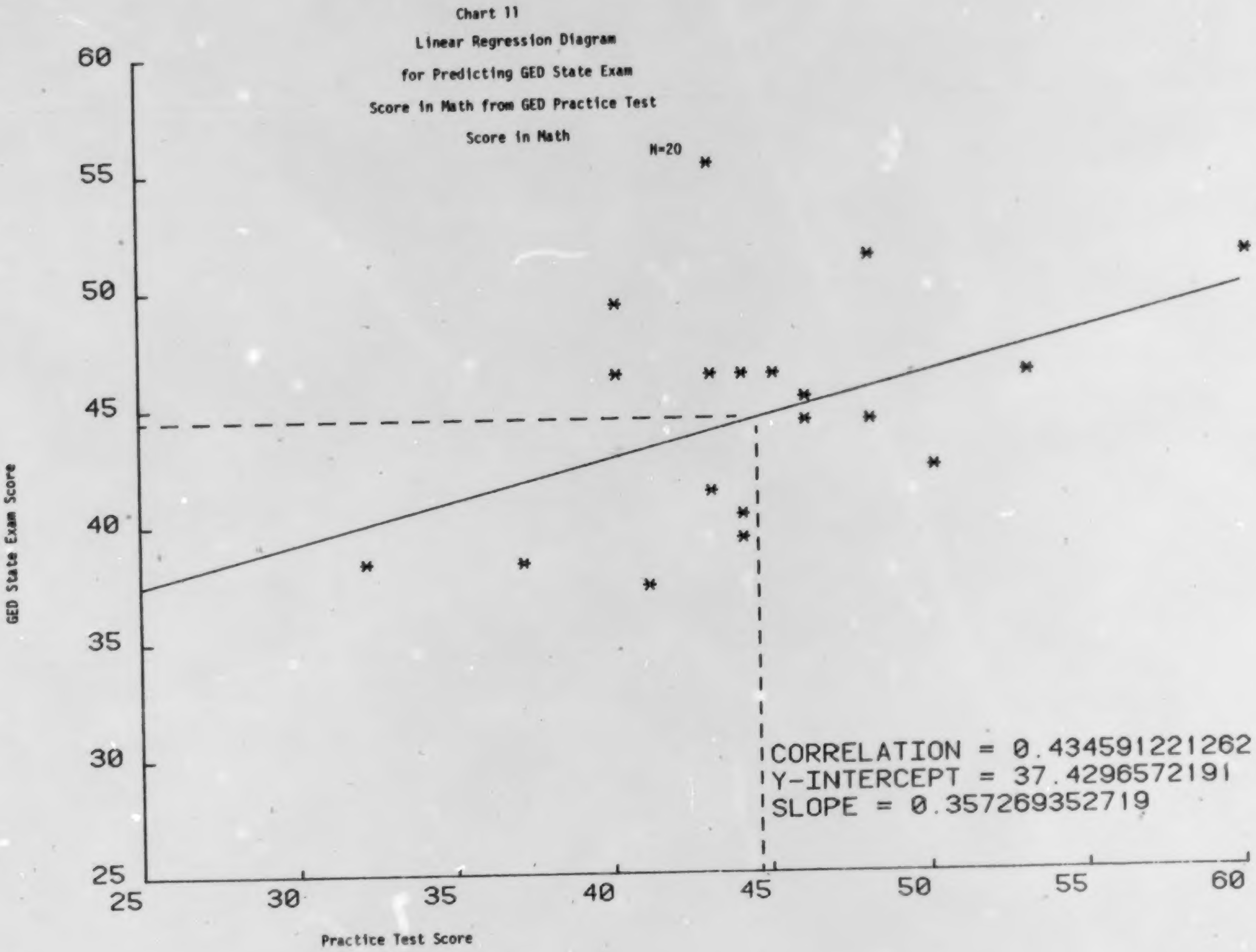


Chart 11
Linear Regression Diagram
for Predicting GED State Exam
Score in Math from GED Practice Test
Score in Math

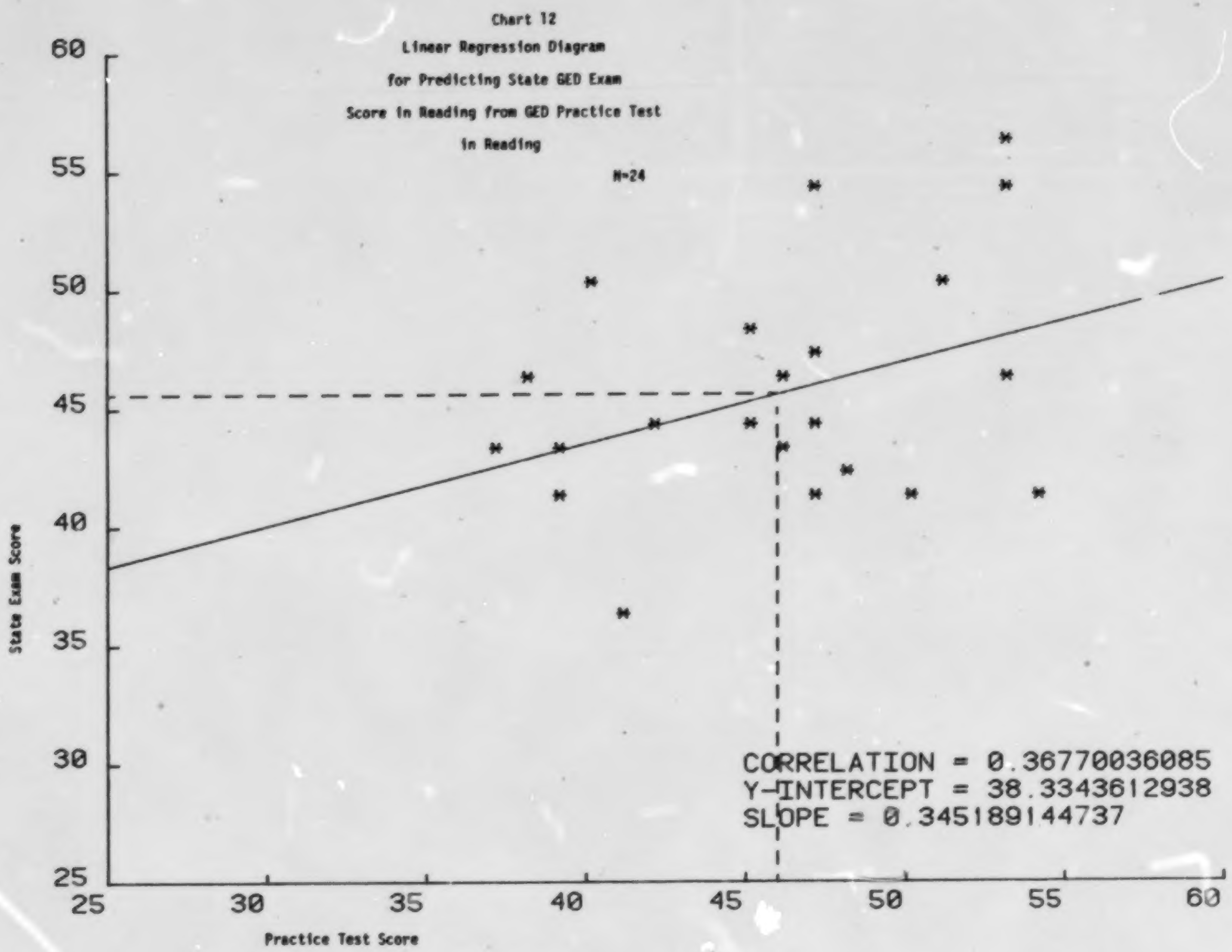


Chart 12

Linear Regression Diagram

for Predicting State GED Exam

Score in Reading from GED Practice Test

in Reading

N=24

CORRELATION = 0.36770036085

Y-INTERCEPT = 38.3343612938

SLOPE = 0.345189144737

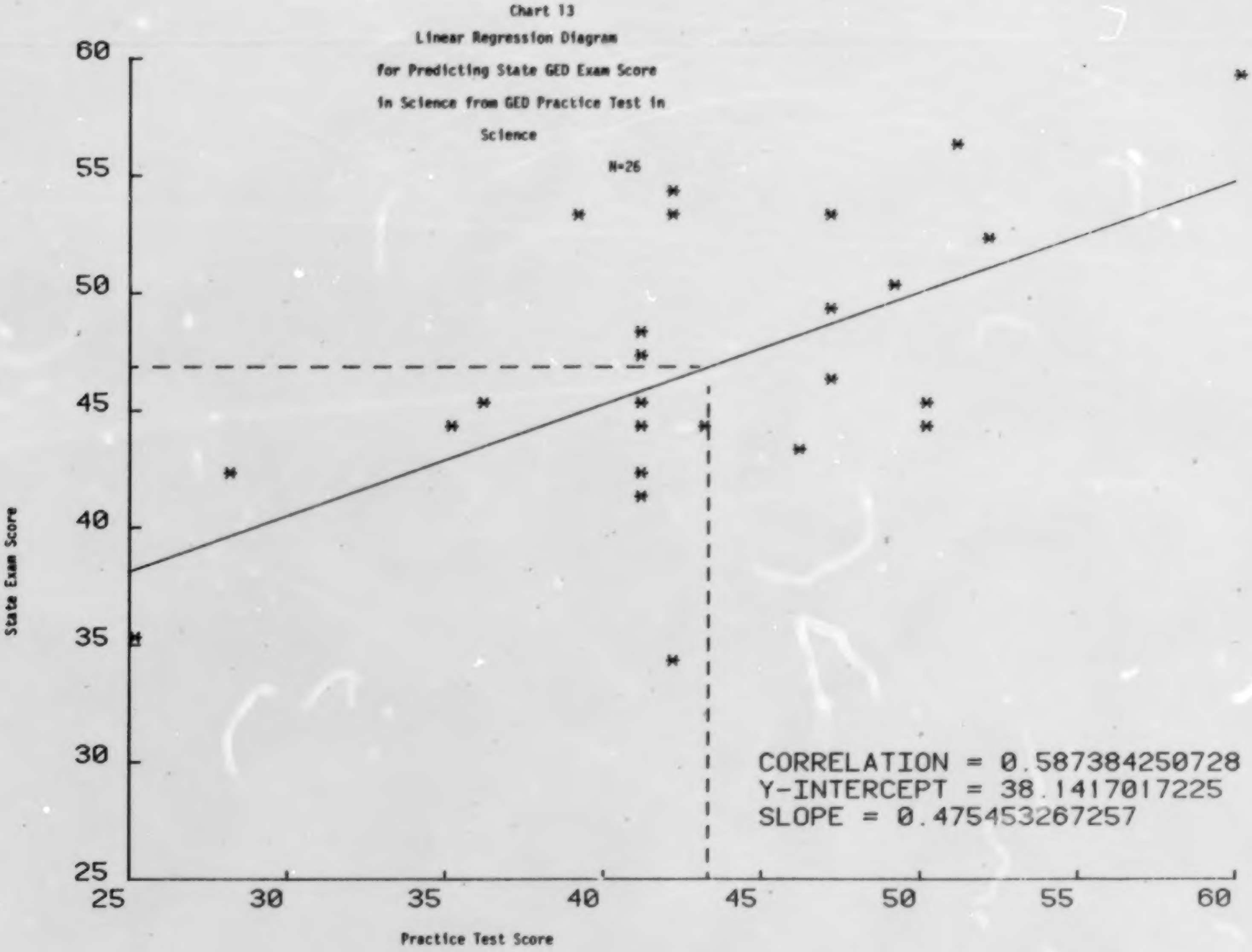


Chart 13
Linear Regression Diagram
for Predicting State GED Exam Score
in Science from GED Practice Test in
Science

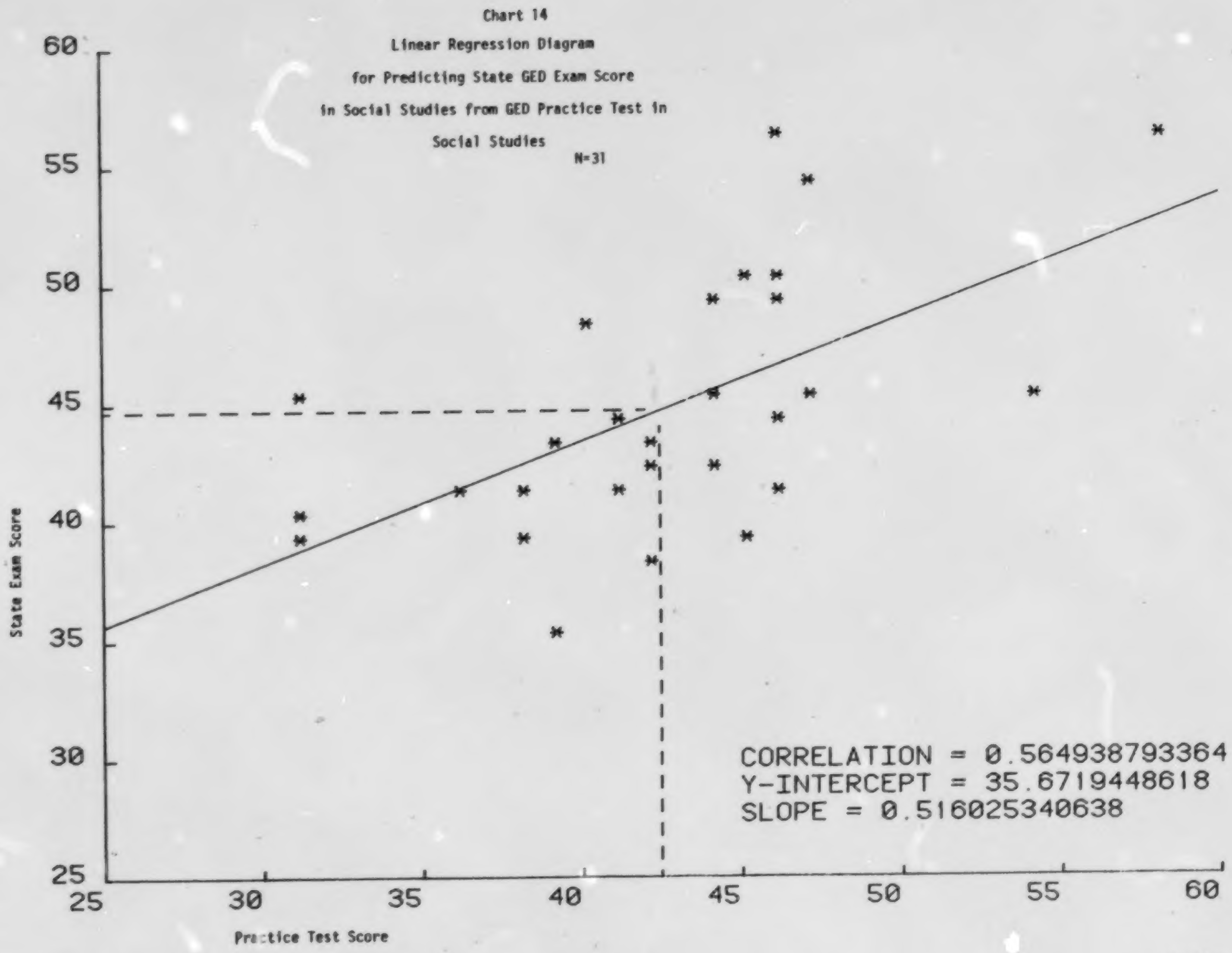


Chart 14

Linear Regression Diagram for Predicting State GED Exam Score in Social Studies from GED Practice Test in Social Studies

N=31

Adkins Test Data

In order to measure the competencies taught by the Adkins program, the researchers developed pre and posttests from the items contained in the Occupational Knowledge, Consumer Economics, and Community Resources Adult Performance Level (APL) tests. The pre and post measures were devised from data obtained on the APL test from a sample of Job Corps enrollees. Item difficulty and discrimination indices were calculated, items were matched on the basis of requisite skills, and parallel tests were constructed and validated on a Job Corps sample.

The Adkins program was implemented at two sites--Pittsburgh and Woodstock. Woodstock data is being presented here; however, it should be interpreted in light of the numerous site difficulties encountered. Additionally, the program at Woodstock was not continued for Phase 2 of EIE. All Corpsmembers were posttested before program suspension; however, results are not indicative of the completion of either the Adkins or the Job Corps World of Work programs.

Table 35 contains pretest and posttest data by program by site in terms of means and mean changes for both total score test results and performance on each of the three major instrument objectives. It should be noted that the test used for these programs was constructed as a competency-based test and information treating it as such may be found in Table 36.

TABLE 35

ADKINS TEST RESULTS

By Model and Site

Total Score Results

	APL Pretest Mean	APL Posttest Mean	Mean Gain
Pittsburgh Experimental	28.37	34.00	5.63
Pittsburgh Control	30.61	35.69	5.08
Maryland Experimental	19.50	22.08	2.58
Maryland Control	29.33	26.06	-3.27

Component Item Category Results

	Occupational Knowledge-13 Items			Consumer Economics-22 Items			Community Resources-17 Items		
	Pretest Mean	Posttest Mean	Mean Gain	Pretest Mean	Posttest Mean	Mean Gain	Pretest Mean	Posttest Mean	Mean Gain
Pittsburgh Experimental	8.25	9.50	1.25	12.86	14.43	1.57	7.25	9.93	2.68
Pittsburgh Control	8.76	10.00	1.24	13.08	15.69	2.61	9.46	10.14	.68
Maryland Experimental	5.50	7.66	2.16	9.75	9.16	-.59	4.41	4.16	-.25
Maryland Control	7.33	6.27	-1.06	14.05	11.11	-2.94	9.11	9.22	.11

TABLE 36

Adkins Test
Mastery Data By Program Within Site

Site	Group	N	Test	Occupational Knowledge (13 items)	Consumer Economics (22 items)	Community Resources (17 items)
Pittsburgh	Adkins	16	Pre	19%	1%	0%
			Post	44%	19%	31%
	JC	13	Pre	38%	8%	0%
			Post	38%	46%	31%
Woodstock	Adkins	12	Pre	0%	1%	0%
			Post	17%	0%	0%
	JC		Pre	2%	4%	0%
			Post	6%	22%	17%

The standard employed for the determination of mastery was an arbitrary one of 80 percent. While seemingly "arbitrary," this standard was thoughtfully conceived. The 80 percent mastery standard is the one most commonly used in both research and practice. Additionally, a comparative study of several methods for determining the cut-score on a competency-based test (Malech, 1978) yielded results showing that this methodology results in a passing percentage on each objective roughly in the middle of those established by more sophisticated statistical procedures. This method is not data dependent for the establishment of model parameters and therefore, is not affected by site differences. The proportion of misclassifications from this procedure does not deviate enough from the more sophisticated models to warrant the computational complexity necessitated by probability or Bayesian approaches. Additionally, many of the more sophisticated procedures are not designed to be used with objectives containing this large a number of items.

The competency-based data which are presented here should be interpreted with caution for several reasons. First, the test itself may not be measuring the competencies taught within either the Adkins or the Job Corps World of Work programs. Second, the competency weighting within the test, in terms of number of items, does not appear to be consistent with the curriculum emphases of the relevant programs. Third, students in these programs are required to take the Adkins test and the SAT tests which were included to measure any transfer of motivational learning effects.

Preliminary information indicates that the students resent taking so many posttests and are, therefore, not really trying. This, in and of itself, negates the validity of the use of this test to measure program effectiveness. Fourth, site conditions and/or program conditions may be affecting results. Teachers who were trained in the use of the Adkins program left Job Corps and untrained teachers took their place; financial considerations resulted in Pittsburgh being provided with only seven of the ten Adkins units making the program shorter than 90 hours; and suspension of the study at Woodstock necessitated posttesting before the completion of the course.

The researchers are investigating the possible use of other instrumentation by which to evaluate the Adkins and Job Corps World of Work programs. In addition, it is strongly recommended that the Adkins program be tested at a larger site in order to obtain a sufficient sample size to enable accurate determination of the potential value of the Adkins program for more wide scale use in Job Corps.

Process Evaluation Data

In addition to the impact of experimental programs in terms of retention rate, attendance, gains, etc., there are certain operational questions which must be asked. These relate to program satisfaction on the part of both Corpsmembers and teachers, as well as to such things as ease of implementation and cost. The primary emphasis in this preliminary study will be on Corpsmember satisfaction.

Corpsmember satisfaction questionnaires were developed utilizing a series of core questions which would be asked of all enrollees and a series of questions based on specific models. The questionnaires were set up on a 5 point Likert scale with 3.0 being the neutral point. Thus, the scores above 3.0 demonstrate a positive attitude. Item means for the core questions by model are presented in Table 37.

It can be seen from this data, that all Job Corps enrollees in this sample have a highly positive attitude toward both Job Corps and education in general. Some of the sample sizes are small, but the results contained herein are consistent with previous Job Corps data gathered by the researchers. Therefore, it is believed that the positive attitude will be maintained as the sample size increases.

Additionally, while there is fluctuation among models regarding response to the same question, this is as was expected. Different

TABLE 37

Corpsmember Satisfaction Data By Model And Center
Core Questions

Questions	NRP Breckinridge	Job Corps Read. Program Breckinridge	Staffing Breckinridge	CAI PLATO Clearfield	NRP Clearfield	Job Corps Read. Program Clearfield	Staffing Clearfield
I learn things quickly N=	3.74 (27)	3.71 (21)	3.53 (15)	3.52 (75)	3.75 (28)	3.56 (23)	3.42 (19)
I enjoy learning N=	4.18 (27)	4.38 (21)	4.46 (15)	3.93 (74)	3.78 (28)	4.13 (23)	3.89 (19)
I learn faster in Job Corps than in school N=	3.51 (27)	3.76 (21)	4.13 (15)	3.48 (75)	3.32 (28)	3.47 (23)	3.31 (19)
People could have a better life with more education N=	4.33 (27)	4.76 (21)	4.66 (15)	3.81 (75)	3.57 (28)	3.91 (23)	3.94 (19)
Job Corps is helping me learn things to make my future better N=	4.18 (27)	4.66 (21)	4.73 (15)	3.84 (75)	3.57 (28)	3.65 (23)	4.21 (19)
Teachers in JC care more than teachers in school N=	3.25 (27)	3.80 (21)	3.73 (15)	3.13 (75)	3.21 (28)	2.95 (23)	2.94 (18)
You need math to get a better job N=	3.92 (27)	4.23 (21)	4.20 (15)	4.11 (75)	4.35 (28)	3.69 (23)	3.58 (17)
I'm glad I entered JC N=	4.14 (27)	4.04 (21)	4.33 (15)	3.84 (75)	4.07 (28)	3.43 (23)	3.36 (19)
You need to read to get a good job N=	4.18 (27)	4.52 (21)	4.80 (15)	3.91 (75)	3.50 (28)	3.86 (23)	3.26 (19)
I am treated fairly by my JC teachers N=	3.96 (27)	4.04 (21)	4.40 (15)	3.72 (75)	3.77 (27)	3.69 (23)	3.63 (19)

TABLE 37 (cont.)

Corpsmember Satisfaction Data By Model And Center
Core Questions

Questions	APL El Paso	Job Corps Program El Paso	NRP Gary	Job Corps Read. Program Gary	CAI Phoenix	NRP Phoenix	Job Corps Read. Program Phoenix
I learn things quickly N=	3.71 (14)	4.00 (13)	3.58 (29)	3.03 (27)	3.2 (10)	2.78 (14)	
I enjoy learning N=	3.86 (14)	3.92 (13)	4.41 (29)	4.29 (27)	3.4 (10)	3.66 (15)	
I learn faster in Job Corps than in school N=	4.07 (14)	3.92 (13)	3.72 (29)	3.66 (27)	3.6 (10)	3.80 (15)	
People could have a better life with more education N=	4.21 (14)	4.23 (13)	4.41 (29)	4.07 (27)	4.8 (10)	4.00 (15)	
Job Corps is helping me learn things to make my future better N=	4.21 (14)	4.54 (13)	4.41 (29)	4.00 (27)	4.5 (10)	4.20 (15)	DATA NOT YET AVAILABLE
Teachers in JC care more than teachers in school N=	3.86 (14)	4.00 (13)	3.82 (29)	3.33 (27)	3.9 (10)	3.93 (15)	
You need math to get a better job N=	3.93 (14)	4.00 (13)	4.17 (29)	3.77 (27)	4.00 (10)	3.71 (14)	
I'm glad I entered JC N=	4.00 (14)	4.46 (13)	4.17 (29)	3.81 (27)	3.90 (10)	4.00 (15)	
You need to read to get a good job N=	3.86 (14)	3.92 (13)	4.31 (29)	4.29 (27)	5.00 (10)	4.53 (15)	
I am treated fairly by my JC teachers N=	3.79 (14)	4.15 (13)	4.06 (29)	3.88 (26)	4.40 (10)	4.00 (15)	

TABLE 37 (cont.)

Corpsmember Satisfaction Data By Model And Center
Core Questions

Questions	Adkins Pittsburgh	World of Work Pittsburgh	Cambridge GED Tongue Point	Job Corps GED Tongue Point	NRP Tongue Point	Job Corps Read. Program Tongue Point
I learn things quickly N=	3.46 (15)	3.81 (11)	4.40 (5)	4.00 (3)	3.78 (33)	3.96 (33)
I enjoy learning N=	3.93 (15)	4.45 (11	4.00 (5)	4.00 (4)	4.45 (33)	4.21 (33)
I learn faster in Job Corps than in school N=	3.40 (15)	3.81 (11)	4.60 (5)	4.25 (4)	3.84 (32)	3.96 (33)
People could have a better life with more education N=	4.40 (15)	4.63 (11)	5.00 (5)	4.75 (4)	4.57 (33)	4.51 (33)
Job Corps is helping me earn things to make my future better N=	4.33 (15)	4.45 (11)	4.80 (5)	4.75 (4)	4.54 (33)	4.45 (33)
Teachers in JC care more than teachers in school N=	3.66 (15)	3.18 (11)	4.40 (5)	3.75 (4)	3.48 (33)	3.81 (33)
You need math to get a better job N=	4.26 (15)	4.27 (11)	4.60 (5)	4.75 (4)	4.21 (33)	3.96 (33)
I'm glad I entered JC N=	3.46 (15)	4.27 (11)	4.80 (5)	4.50 (4)	4.48 (33)	4.27 (33)
You need to read to get a good job N=	4.26 (15)	4.27 (11)	4.20 (5)	4.75 (4)	4.39 (33)	4.36 (33)
I am treated fairly by JC teachers N=	3.80 (15)	4.27 (11)	4.25 (4)	4.25 (4)	4.03 (33)	3.84 (33)

TABLE 37 (cont.)

Corpsmember Satisfaction Data By Model And Center
Core Questions

Questions	Adkins Woodstock	World of Work Woodstock	CAI Math Woodstock	Job Corps Math Woodstock
I learn things quickly N=	4.09 (11)	4.27 (18)	4.11 (38)	3.85 (33)
I enjoy learning N=	4.54 (11)	4.50 (18)	4.21 (38)	4.33 (33)
I learn faster in Job Corps than in school N=	3.45 (11)	3.33 (18)	3.47 (38)	3.33 (33)
People could have a better life with more education N=	4.18 (11)	4.61 (18)	4.24 (38)	4.64 (33)
Job Corps is helping me learn things to make my future better N=	4.45 (11)	4.22 (18)	4.34 (38)	4.33 (33)
Teachers in JC care more than teachers in school N=	2.54 (11)	2.72 (18)	3.58 (38)	3.12 (33)
You need math to get a better job N=	4.18 (11)	4.38 (18)	3.87 (38)	4.12 (33)
I'm glad I entered JC N=	4.27 (11)	4.50 (18)	4.08 (38)	4.12 (33)
You need to read to get a good job N=	4.27 (11)	4.16 (18)	4.42 (38)	4.39 (34)
I am treated fairly by my JC teachers N=	3.63 (11)	3.88 (18)	3.84 (38)	3.88 (33)

interviewers are involved as are different sites, and a differential effect from these was expected. However, what is worthy of note is that none of the item means were below 3.0, demonstrating that Job Corps enrollees who have taken the 90 hour posttest (remained in the program 4 1/2 months) are highly motivated, realize the value of education, and are pleased with the education they are getting in Job Corps.

Program specific process evaluation data are being treated separately by model because different questions were contained in each questionnaire. This data may be found in Tables 38-44.

The data indicate, virtually without exception, that the enrollees in each of the experimental programs feel positively toward them. Barring some computer down time (Phoenix program suspension, PLATO difficulty during the summer), program enrollees appear to be satisfied with the substance and operation of the experimental programs. However, there is no consistent pattern in favor of new programs as opposed to control programs.

It should be noted that sample sizes are still relatively small. The process data will continue to be tracked as the study progresses. More confidence can be placed in the results from a statistical perspective as the N in each program increases. However, the data is certainly consistent across programs demonstrating that Corpsmembers are pleased with the skills they are learning in each.

TABLE 38
ADKINS

Questions	Adkins Woodstock	Adkins Pittsburgh
I like having lessons on television.	Data not currently available.	3.93 (15)
The programs were easy to understand.		3.93 (15)
The things I learned will help me get a better job when I leave J.C.		4.40 (15)
The group discussions were interesting.		3.93 (15)
I think I learned how to keep my job through this program.		4.40 (15)
I wish more of the J.C. program was presented like this.		4.07 (15)
Seeing myself on television helped me learn how I look and sound to others.		4.00 (15)
After taking this program, I am not afraid of a job interview.		4.13 (15)
Because of this course, I feel I can take better care of my money when I leave J.C.		3.13 (15)
My teachers had time to help me when I needed it.		4.27 (15)
I think I am learning faster in this program than my friends in the regular J.C. program.		3.80 (15)
My teacher liked using the Adkins program.		3.80 (15)
The Adkins materials were interesting.		3.87 (15)
The Adkins materials are not too immature for my age group.		4.07 (15)

TABLE 39

APL
El Paso

QUESTION	ITEM MEAN	N
The things I learned in APL will help me get a job.	4.07	14
Going out into the community gave me confidence in getting a good job.	3.50	14
I was able to get through the materials at my own speed.	3.57	14
I liked the fact that the APL program can help me get a high school diploma.	4.14	14
Because the materials were job-related, I wanted to learn more.	3.65	14
More people would want to come to Job Corps if they knew they could get a high school diploma.	4.27	14
My teachers had enough time to help me when I needed it.	3.93	14
The APL materials are not too immature for my age group.	4.07	14
My teacher liked using this program with us.	4.07	14
I think I am learning faster in APL than my friends in the regular Job Corps program.	3.79	14

TABLE 40

CAI

Questions	Phoenix	Clearfield
Working with a computer makes me feel smart.	3.40 (10)	3.25 (75)
I would like to be able to spend more time on the computer.	2.50 (10)	3.28 (74)
I like the fact that on the computer, other people don't know when I make a mistake.	3.30 (10)	3.14 (75)
I would rather work with a computer than a teacher.	3.20 (10)	4.34 (75)
The computer lets me work at my own speed.	3.30 (10)	3.61 (73)
The programs on the computer make me want to work harder.	4.10 (10)	3.60 (75)
The computer should be used more in Job Corps.	3.80 (10)	3.64 (75)
My teacher really liked working with the computer.	3.70 (10)	3.75 (75)
The materials on the computer were not too immature for my age group.	3.70 (10)	3.52 (75)
I think I am learning faster on the computer than my friends who are not using it.	3.00 (9)	3.23 (69)
My teacher had enough time to help me when I needed it.	2.00 (1)	3.14 (62)
The computer was not off so much of the time that I couldn't use it when I needed to.		2.90 (57)

Table 41

CAI Math
Woodstock

QUESTION	ITEM MEAN	N
I would like to be able to spend more time working with the Classmate 88.	3.33	9
The directions for working with the Classmate 88 are clear.	3.78	9
Working with equipment like the Classmate 88 makes me feel smart.	3.89	9
The problems on the Classmate 88 were not boring.	3.78	9
I like the fact that when I work on the Classmate 88, other people don't know when I make a mistake.	3.89	9
Machines like the Classmate 88 should be used more in Job Corps.	3.67	9
Classmate 88 lets me work at my own speed.	3.56	9
The Classmate 88 was not broken so much that I couldn't use it when I needed to.	3.67	9
The problems on Classmate 88 are not too immature for my age group.	4.00	9
My teacher had enough time to help me when I needed it.	4.11	9
I think I am learning faster on the Classmate 88 than my friends who are not using it.	4.00	9
My teacher seemed to like working with the Classmate 88.	3.89	9

TABLE 42

CAMBRIDGE GED

Questions	Breckinridge	Tongue Point
I like having lessons on television.		3.33 (3)
The programs were easy to understand.	Data not currently available	3.67 (3)
The other materials like books and study guides gave me enough help when I needed it.		3.33 (3)
The television lessons were interesting to me.		3.33 (3)
I could not have gone through the program faster without the television lessons.		4.00 (3)
Programs on television should be used more in Job Corp.		3.33 (3)
I think I am learning faster using Cambridge than my friends who are not using it.		3.67 (3)
My teacher liked using the Cambridge materials.		4.00 (3)
The Cambridge materials are not too immature for my age group.		3.00 (3)
My teacher had enough time to help me when I needed it.		3.33 (3)
The tests that were used in the books helped me to get ready for the GED test.		4.00 (2)

TABLE 43
NRP

Questions	Breckinridge	Clearfield	Gary	Phoenix	Tongue Point
The language and study skills portion of the program is helpful.	4.11 (27)	3.17 (28)	4.31 (29)	3.06 (15)	3.93 (33)
It is not taking me longer to get through the program that I thought it would.	2.92 (27)	3.00 (28)	2.48 (29)	2.20 (15)	3.48 (33)
The materials I had read covered enough different things to keep me interested.	3.88 (27)	3.37 (27)	3.96 (29)	3.71 (14)	3.48 (33)
I like to read for fun more now than I did when I came to Job Corps.	3.56 (27)	2.71 (28)	3.96 (29)	3.40 (15)	3.87 (33)
The things I read in my old school were not as good as the things that I am reading in Job Corps.	3.00 (27)	3.39 (28)	3.31 (29)	3.86 (15)	3.21 (33)
My teacher had enough time to help me when I needed it.	3.74 (27)	3.42 (28)	3.96 (29)	3.73 (15)	3.84 (33)
The reading program materials are not too immature for my age group.	3.77 (27)	3.32 (28)	3.58 (29)	3.53 (15)	3.57 (33)
By the time I finish this program, I will really be ready for the reading part of the GED.	4.00 (27)	3.42 (28)	4.24 (29)	3.53 (15)	4.09 (33)
My teacher really liked working with the reading program.	4.07 (27)	3.64 (28)	4.24 (29)	3.53 (15)	4.09 (33)
I think I am learning faster than my friends who are in other Job Corps reading programs.	3.46 (26)	3.50 (14)	3.56 (29)	2.84 (13)	3.72 (33)

TABLE 44
STAFFING

Questions	Breckinridge	Clearfield
Having aides helped make the classes more interesting.	4.40 (15)	3.38 (18)
I went through the program faster because the aides were there to help me.	3.46 (15)	3.27 (18)
I got enough attention from my teacher even though there was an aide.	4.13 (15)	3.22 (18)
Aides should be used more in Job Corps.	4.06 (15)	3.38 (18)
My teacher really liked having the aide.	3.26 (15)	3.16 (18)
The aide respected me as a person.	4.06 (15)	4.00 (17)
There were enough aides to help everyone when they needed it.	3.73 (15)	3.16 (18)
I think I am learning faster than my friends who are in classes without aides.	4.40 (15)	3.33 (18)
One day I would like to be an aide in Job Corps.	4.26 (15)	3.05 (18)

Preliminary data from the teachers involved in the EIE study indicate they are pleased with the model programs, they are excited about experimentation in Job Corps, and that they would like to participate in future Job Corps experimentation. Data on program impact on the center operations will be available shortly. It should be noted that where requirements for Cohort 1 operation impacted negatively on centers, modifications were made to Cohort 2 operations in an attempt to make programs more workable within Job Corps. Data on the efficacy of the modifications will be available as the study progresses.

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